

1999 Editorial Index

Issue	Page	Issue	Page	Issue	Page		
ACQUISITIONS/MERGERS/CONSOLIDATIONS							
Association Report: NHMA—Housewares Top Brass Tackle Tough Issues in Unison	Jan	Technology Update: Fastening—Magnetic Pulse Welding Impacts Appliance Industry	Aug	Domotecnica Preview: Still Growing	Feb		
Global Report: Asia to Drive World Appliance Growth	Feb	New Steel Designs for Handles	Aug	By the Way: Rising Design Stars	Feb		
Merger Mania	Sep	Technology Update: Metalforming—Rethinking Component Processing	Nov	Editorial: Form, Function and Fun	Mar		
A.O. Smith Completes Third Acquisition in Three Years	Oct	AM CONFERENCE & EXPO					
ADHESIVES (See Fasteners/Adhesives/Joining)							
AGITATORS							
Plastics: Playing a Better Part	Jan	Editorial: Plan for Nashville, Now	May	Cutting Edge: Diamonds	Mar		
AIRBAGS							
MEMS on the Move	Feb	Editorial: Best of Both Worlds	Jul	Show New Facet	Mar		
AIR CLEANERS (Purifiers)							
1999 Market Profile (Share of Market)	Apr	1999 AMCE Preview: Discovery Road	Apr	Shipments	Mar		
AHAM: Regulations at a Glance	Sep	AMCE: Keynote	Aug	New & Notable: Stainless-Steel Grill, Digital Cooktop, Let It Snow...	Feb		
R&D: Worldwide Input	Sep	AMCE: Event Schedule	Aug	Let It Snow...Let It Snow, Green Heat Pumps	Mar		
AIR CONDITIONERS AND HEAT PUMPS							
Annual Industry Outlook: New Products Power Gains	Jan	AMCE: Conference Program	Aug	Association Report: GAMA—GAMA Urges Support of State Tort-Reform Efforts	Mar		
New & Notable: Green Heat Pumps	Mar	AMCE: Educational Programs	Aug	Technology Update: Electrical Testing—Detecting Winding Problems Via Surge Testing	Mar		
Two Challenges: Fit and Efficiency	Mar	AMCE: Exhibitor List	Aug	Housewares Show Preview: Laid-Back, Technology-Rich Designs	Mar		
1999 Market Profile (Share of Market and Component/Material Consumption)	Apr	1999 AMCE: Force of the Future	Sep	Frankly Speaking: IATC Marks 50th	Mar		
Gas Heater A/C	Apr	AMCE At a Glance	Sep	Editorial: Small Could Be Big	Apr		
Dual Capacities	Apr	AMCE: Conference Program	Sep	Cutting Edge: Prosthetic Devices Get Smart	Apr		
Flow of Ideas	May	AMCE: Educational Programs	Sep	Shipments	Apr		
Customization Not Redesign	Jun	AMCE: AM to Honor Excellence in Design & Editors' Choice Winners at AMCE Welcome Reception	Sep	New & Notable: Shhhhh!, Say 'Cheese,' Double-Sided Printing, Direct Vent	Mar		
Cool Ideas	Jun	1999 AMCE: Exhibitor List	Sep	Association Report: AHAM—AHAM's Year of Change	Apr		
Lining Up Behind AZ-20	Jun	AMCE: Exhibitors (floor plan)	Sep	1999 Market Profile (Share of Market and Component/Material Consumption)	Apr		
Association Report: ARI—Opposing Europe on Early HCFC Phaseout	Jul	AMCE: Expo Exhibitor Preview	Sep	AHR Expo Standouts: Gas Heater A/C	Apr		
Cost-Effective Adhesive Assemblies	Jul	Editorial: EID Adds Categories	Oct	'Tank-in-Tank'	Apr		
AMCE: Conference Program	Aug	Editorial: Wanted—Designs for the Twentysomethings	Nov	Dual Capacities	Apr		
AMCE: Conference Program	Sep	AMCE in Review: Creative Connectivity	Nov	Coil Cuts Cooling Costs by 50%	Apr		
AHAM: Regulations at a Glance	Sep	AMPLIFIERS					
'Chain Gang'	Nov	AMCE: Editors' Choice	Sep	Radiant Heating Up	Apr		
By the Way: Two Faces Eye the Future	Nov	ANSWER MACHINES					
AIR CONDITIONERS (Room)							
Annual Industry Outlook: New Products Power Gains	Jan	Annual Industry Outlook: New Products Power Gains	Jan	QAT (Quality Action Team) Unites Tecumseh and Henkel	Apr		
Domotecnica Preview: Still Growing	Feb	Editorial: Caution—Learning Curve Ahead	Jan	1998: The Growth Year	Apr		
Laid-Back, Technology-Rich Design	Mar	Cutting Edge: A Lot of Hot Air	Jan	Testing and Certification Update	Apr		
1999 Market Profile (Share of Market)	Apr	Shipments	Jan	Home Builders Show Highlights: Better Served	Apr		
Association Report: NHMA—Make It Home to the 2000 Housewares Show	Sep	Association Report: NHMA—Housewares Top Brass Tackle Tough Issues in Unison	Jan	The Connected Kitchen	Apr		
AHAM: Setting the Standard(s)	Sep	Technology Update: Motors—Two-Phase, Switched-Reluctance Motor Control	Jan	IATC Preview: Looking Back at Looking Ahead	Apr		
R&D: Worldwide Input	Sep	AHR Review: International Air Conditioning, Heating and Refrigeration Exposition	Jan	Information Technology: The Challenge of CAE Data Management	Apr		
New & Notable: Double Cooling	Oct	Annual Industry Outlook: New Products Power Gains	Jan	Editorial: Plan for Nashville, Now	May		
AIR PURIFIERS							
1999 Market Profile (Share of Market)	Apr	Information Technology: Voice Actuation—New Tool for CAD	Jan	Cutting Edge: Bridging the Net: For Real?	May		
AHAM: Regulations at a Glance	Sep	Editorial: New Leader, New Location: Same Questions, Same Challenges	Feb	New & Notable: The Omlet Maker, First 4-Cycle Gas Chainsaw, New Imaging Technology	May		
R&D: Worldwide Input	Sep	Cutting Edge: Building Better Biosensors	Feb	Mini Microwave	May		
ALARMS							
Brainstorming	Feb	Shipments	Feb	Shipments	May		
ALLOYS							
Computer Modeling Speeds Design of New Steel Alloys	Feb	Association Report: ARI—"You've Got Mail"	Feb	Association Report: NHMA—Small Appliance Showcase Created for Year 2000 Housewares Show	May		
Technology Update: Metalforming—Rethinking Component Processing	Nov	Technology Update: Moldings—Thinwall a Cost Cutter	Feb	Technology Update: Software—Virtual Reality for Design and Manufacturing	May		
ALUMINUM							
1999 Market Profile (Component/Material Consumption)	Apr	Special Section: Exclusive Global Report—Majors	Feb	Domotecnica Review: Domo Delights	May		
		Asia to Drive World Appliance Growth	Feb	POPCORN Research Advances	May		
		The World at a Glance	Feb	Microwave Cooking	May		
		New Marks for Europe	Feb	Show Stoppers	May		
		Europe at a Glance	Feb	Globalization: The Second Decade	May		
		Americas at a Glance	Feb	AHAM, CECE Meeting Signals Turning Point	May		
		Asia at a Glance	Feb	G-3 Global Thoughts	May		
				G-4 Suppliers Mirror Appliance Trends	May		
				G-7 Twelfth Annual Excellence in Design Winners	May		
				G-10 Twelfth Annual Excellence in Design Runners-Up	May		
				G-12 Twelfth Annual Excellence in Design Runners-Up	May		
				G-13	71		

1999 EDITORIAL INDEX

Issue	Page	Issue	Page	Issue	Page
By the Way: The Next Great New Appliance.....	May	1999 Appliance Manufacturer Conference & Expo: Force of the Future.....	Sep	Turn for the Better	Mar
Editorial: Going for the Gold.....	Jun	AMCE At a Glance	Sep	Metalforming Advances.....	Apr
Cutting Edge: A Thread of Hope for Processor Flexibility.....	Jun	AMCE: Conference Program.....	Sep	Yield Productivity Gains	Apr
Shipments.....	Jun	AMCE: Educational Programs	Sep	Cooler Connection	Apr
New & Notable: Kitchen/Bath Show Highlights—Refrigeration for the Outdoors, Visual Cues for Simpler Dishwashing, First Twin of Its Kind, First Steam Oven for the U.S., Mega Wine Storage, World's First Gas Broiler in a Convection Oven	Jun	AHAM Annual Member Meeting Review: Capital Decisions.....	Sep	Technology Update: Software—Virtual Reality for Design and Manufacturing	May
AM Motors Survey: Better and Better	Jun	Swim and Prosper	Sep	Joining Systems Save Time, Money, Lives	Jun
Technology Update: Finishing—Pretreatments for Powder Coatings	Jun	CPSC Chair Challenges	Sep	Adhesives Provide HVAC with Green Strength	Jun
Frankly Speaking: Advantages of Creating Your Own Workforce	Jun	AHAM Members	Sep	Assembly: Trained Teams/Lean Design	Jul
Editorial: IAER Effort Worth Following	Jul	Industry Leaders Recognized, Officers Named	Sep	Fastener Standards Ready for the 21st Century	Jul
Cutting Edge: Keep the Cache and Run Shipments.....	Jul	The World of Standards	Sep	A Virtual Factory for Assembly Processes	Jul
New & Notable: Seen at COMDEX/Spring '99 in Chicago—Security Finger Imaging, High-Speed Color, Sunlight Readable, A Smarter Mouse	Jul	Regulations at a Glance	Sep	One-Stop Concept/Manufacture Source	Jul
Association Report: ARI—Opposing Europe on Early HCFC Phaseout	Jul	Setting the Standard(s)	Sep	Torque Teamwork	Jul
IATC Review: Challenges and Solutions	Jul	1999 AMCE: Exhibitor List	Sep	Assembly Protection	Jul
Technology Update: Motors—A New Start	Jul	AMCE Expo Exhibitor Preview	Sep	Automating Assembly	Jul
Information Technology: Engineering Web-Based Digital Appliances	Jul	Research & Development: A Think Tank	Sep	Just the Ticket for Printer Assembly	Jul
Editorial: AHAM Alive and Well in Washington	Aug	R&D by Long Distance	Sep	Cost-Effective Adhesive Assemblies	Jul
Cutting Edge: Quick Thinking Factory Robots	Aug	R&D For the Millennium	Sep	Assembly by Casting	Jul
Shipments.....	Aug	Worldwide Input	Sep	For Speaker Assembly, Strong Bond in Less Time	Jul
Association Report: AHAM—Issue-Driven AHAM Focuses on Energy, Safety, and the Environment	Aug	Gas Modules for Fast Food	Sep	Conductive Resins for Computers	Aug
Technology Update: Fastening—Magnetic Pulse Welding Impacts Appliance Industry	Aug	Industry Drives R&D Spending	Sep	Icemakers Pose 3-Part Challenge	Aug
Testing Labs, Equipment, Standards & Certification: Cold Value	Aug	Technology Update: High-Performance Hot Melts	Sep	Medical Equipment Breakthrough	Aug
Getting Ready for IEC 60335	Aug	Frankly Speaking: Call to Action—Get Involved in Global Standards	Sep	Technology Update: Adhesives—High-Performance Hot Melts	Sep
Asian Connection	Aug	Editorial: EID Adds Categories	Oct	Brighter Display for Xerox Printer	Oct
European Update	Aug	Cutting Edge: Cook College Graduates an Intelligent Microwave	Oct	Pump Maker Recreates Design	Nov
Designing for Compliance	Aug	Shipments	Oct	ASSOCIATIONS	
ISO 9000 Update	Aug	New & Notable: Shown at the National Hardware Show in August in Chicago—Gourmet Grilling, Double Cooling, A Clean Cut, First Battery Operated Tankless Water Heater	Oct	11 Association Report: NHMA—Housewares Top Brass Tackle Tough Issues in Unison	Jan
Fast Track	Aug	Technology Update: Ignition and Burner Control—Record Speed	Oct	Editorial: New Leader, New Location: Same Questions, Same Challenges	Feb
New Blues and Other News	Aug	Technology Update: Ignition and Burner Control—Cooktop Sensing System	Oct	12 Association Report: ARI—'You've Got Mail'	Feb
1999 AMCE Preview: Discovery Road	Aug	Lawn, Garden & Power Equipment Expo '99 Review—Working Smarter	Oct	By the Way: Rising Design Stars	Feb
AMCE Keynote	Aug	Pro Motion	Oct	32 Association Report: GAMA—GAMA Urges Support of State Tort-Reform Efforts	Mar
AMCE: Event Schedule	Aug	House Calls	Oct	13 Association Report: AHAM—AHAM's Year of Change	Apr
AMCE: Conference Program	Aug	Electric Sheep	Oct	Editorial: Plan for Nashville, Now	May
AMCE: Educational Programs	Aug	Going Vertical	Oct	62 Association Report: NHMA—Small Appliance Showcase Created for Year 2000 Housewares Show	May
AMCE: Exhibitor List	Aug	New Wave	Oct	Editorial: Going for the Gold	Jun
By the Way: Do-It-Yourself Y2K Bug Killer	Aug	Information Technology: Protecting Intellectual Capital by Managing Information	Oct	Heat Transfer Research	Jun
Editorial: R&D Glass Half Full	Sep	Editorial: Wanted—Designs for the Twentysomethings	Nov	Editorial: IAER Worth Following	Jul
Enviroscene: Wood-Pellet Burner Turns Down Global Heat	Sep	Cutting Edge: Controlling Drift Extends Battery life	Nov	5 Association Report: ARI—Opposing Europe on HCFC Phaseout	Jul
Shipments.....	Sep	New & Notable: Propagating Seeds Electronically, Team Boomer Dedicated to Cystic Fibrosis, 8-Position Handle, Hearthside Comfort	Nov	6 Editorial: AHAM Alive and Well in Washington	Aug
New & Notable: Black and Stainless Beauty, Creative Sewing, 100,000 Plus BTUs, Power Cleaning, Double the Capacity, Four Tools in One, At-Home Shower Spa	Sep	Association Report: GAMA—Sixty-Five and Going Strong	Nov	12 Association Report: AHAM—Issue Driven AHAM Focuses on Energy, Safety, and the Environment	Aug
Maytag Finds Of' Lonely's 'Twin' Plus Award-Winning Twin Bakers	Sep	Technology Update: Metalforming—Rethinking Component Processing	Nov	19 Association Report: NHMA—Make It Home to the 2000 Housewares Show	Sep
Association Report: NHMA—Make It Home to the 2000 Housewares Show	Sep	Prototyping/Industrial Design/Software—Calls for Action	Nov	25 AHAM Member Meeting Preview: Capital Decisions	Sep
Home Automation: Catalysts for Connectivity	Sep	Maytag Adds RISD Resources	Nov	41 Swim and Prosper	Sep
Home Automation: Different Pathways	Sep	Innovations	Nov	42 CPSC Chair Challenges	Sep
Home Automation: MIT's Digital Kitchen.....	Sep	Electrolux Chameleon Is 'Cool' DFE Case Study	Nov	43 AHAM Members	Sep
		Planning the Transition from 2D to 3D	Nov	44 Industry Leaders Recognized, Officers Named	Sep
		Solid Modeling Cuts Time to Market by One-Third for Matsushita	Nov	46 The World of Standards	Sep
		AMCE in Review: Creative Connectivity	Nov	48 Regulations at a Glance	Sep
		By the Way: Two Faces Eye the Future	Nov	48 Setting the Standard(s)	Sep
		ASSEMBLY		51 Coating '99	Sep
		Technology Update: Molding—Thinwall a Cost Cutter	Feb	68 Association Report: GAMA—Sixty-Five and Going Strong	Nov
				25 AUDIO/VIDEO APPLIANCES Annual Industry Outlook: New Products Power Gains	Jan
					91

1999 EDITORIAL INDEX

Issue	Page	Issue	Page	Issue	Page
1999 Market Profile (Share of Market)Apr	19	BURNERS		One-Piece Marvels.....	Aug 28
A Better ViewFeb	46	AHR Preview	Jan	AMCE: Editors' Choice.....	Sep 58
Cutting Edge: Keep the Cache and RunJul	6	1999 Market Profile	Jan	R&D by Long Distance	Sep 81
Home Automation: Different Pathways....Sep	33	(Component/Material Consumption).....Apr		Cutting Edge: Controlling Drift	Nov 6
AUTOMATION		'Tank-in-Tank'	May	Extends Battery Life	
Expo Targets Solutions for Steel Service Centers	52	Record Speed	Oct	CERAMICS	
Spreading the New	48	Cooktop Sensing System	Oct	Self-Regulating Heater.....	Mar 64
Cooler Connection	41	BUSINESS/OFFICE APPLIANCES (see related product listings)		CERTIFICATION PROGRAMS (See Testing, Standards, and Certification)	
Automating Assembly	45	Annual Industry Outlook: New Products Power Gains	Jan	CFCs/HFCs/HFCs	
Pioneering Contract Gasketing	52	Editorial: Form, Function and Fun.....	Mar	Association Report:	
Cutting Edge: Quick Thinking Factory Robots	8	1999 Market Profile (Share of Market)Apr		ARI—'You've Got Mail'	Feb 12
Electric Sheep	62	Fastener Standards for the 21st CenturyJul		Heat Transfer Research	Jun 54
BAR CODE (SCANNERS)		Home Automation: Different Pathways....Sep		Blowing Foam	Jun 55
Laid-Back, Technology-Rich Designs	71	CABLES		Association Report: ARI—Opposing Europe on Early HCFC Phasout	Jul 14
Cutting Edge: Fridging the New? For Real?	6	Plastics: Playing a Better Part	Jan	Association Report: AHAM— Issue-Driven AHAM Focuses on Energy, Safety, and the Environment	Aug 12
Domo Delights	27	Cutting Edge: Building Better Biosensors..Feb		CHAINSAWS	
Assembly Protection	44	From 20-Plus Parts to 2 Major Components	May	New & Notable: First 4-Cycle Gas Chainsaw.....	May 8
Cutting Edge: Cook College Graduates an Intelligent Microwave	44	High Power, Compact Design	Oct	R&D: A Think Tank	Sep 79
BATTERIES		CAD/CAM/CIM		A Weighy Challenge.....	Sep 79
Hands Free	22	Editorial: Caution—Learning Curve Ahead	Jan	CHILLERS	
Watch It Now	58	Information Technology: Voice Activation—New Tool for CADJan		Lining Up Behind AZ-20	Jun 55
Flow of Ideas	75	The Challenge of CAE		CHIPS	
The Shape of Safety	27	Data Management	Apr	Fighting Vampires	Mar 41
L&G: Electric Sheep	62	Reducing Washer Vibration and Noise	Nov	Silicon Sight	Mar 42
Cutting Edge: Controlling Drift Extends Battery Life	6	Planning the Transition from 2D to 3D	Nov	More on Board	Mar 46
BEARINGS		CALCULATORS		CIRCUIT BOARDS	
Customization Options for DC MotorsOct	56	Annual Industry Outlook: New Products Power Gains	Jan	Joining Systems Save Time, Money, Lives	Jun 37
BELTS		CAMCORDERS		CLEANUP APPLIANCES (see related product listings)	
1999 Market Profile (Component/Material Consumption).....Apr	19	Annual Industry Outlook: New Products Power Gains	Jan	Annual Industry Outlook: New Products Power Gains	Jan 91
BIOLOGICAL-AGENT DETECTORS		1999 Market Profile (Share of Market)May		Asia to Drive World Appliance Growth.....Feb	G-3
Twelfth Annual Excellence in Design Winners	61	The Shape of Safety	Jul	New Marks for Europe	G-7
May		Home Automation: Catalysts for Connectivity	Sep	Editorial: Small Could Be Big	Apr 7
BLENDERS		CAMERAS		New & Notable: Shhhhh!	Apr 12
Annual Industry Outlook: New Products Power Gains	91	Plastics: Playing a Better Part	Jan	1999 Market Profile (Share of Market and Component/Material Consumption) ..Apr	19
Diverse, Decorative Design Options	67	Annual Industry Outlook: New Products Power Gains	Jan	Better Served	Apr 63
Laid-Back, Technology-Rich Designs	71	Editorial: Form, Function and Fun.....	Mar	IATC: Looking Back at Looking Ahead	Apr 69
1999 Market Profile (Share of Market and Component/Material Consumption) ..Apr	19	Silicon Sight	Mar	Domo Delights	May 27
4-in-1 Custom Switch for Moulinex Mixer	38	Self-Regulating Heater.....	Mar	Listening Then Innovating	May 51
Oct		Home Automation: MIT's Digital Kitchen	Sep	Twelfth Annual Excellence in Design Winners	May 61
BLOOD-PRESSURE MONITORS		R&D by Long Distance	Sep	Flow of Ideas	May 75
Laid-Back, Technology-Rich Designs	71	CAN OPENERS		Editorial: Going for the Gold	Jun 7
BLOWERS (See Fans and Blowers)		Annual Industry Outlook: New Products Power Gains	Jan	Visual Cues for Simpler Dishwasher	Jun 20
BOILERS		1999 Market Profile (Share of Market)Apr		IATC Review: Challenges and Solutions	Jul 21
Annual Industry Outlook: New Products Power Gains	91	IATC: Looking Back at Looking Ahead	Apr	A Domed Beauty	Aug 40
Enviroscene: Wood-Pellet Burner Turns Down Global Heat	68	CAPACITORS		Home Automation: Catalysts for Connectivity	Sep 27
Record Speed	64	1999 Market Profile (Component/Material Consumption).....Apr		Home Automation: Different Pathways....Sep	Sep 33
BOLTS (nuts)		Technology Update: Motors—A New Start	Jul	AHAM: Regulations at a Glance	Sep AHAM-7
Joining Systems Save Time, Money, Lives	76	CAPITAL INVESTMENT		AMCE: Excellence in Design Winners	Sep 58
Jun		Asia to Drive World Appliance Growth.....Feb		AMCE: Editors' Choice	Sep 58
BOTTLE WARMERS		CARBON DIOXIDE		Calls to Action	Nov 41
By the Way: Rising Design Stars	68	Enviroscene: Wood-Pellet Burner		CLOCKS	
Self-Regulating Heater	64	Turns Down Global Heat	Sep	Domo Delights	May 27
Design Champs	76	CARTONS		Flow of Ideas	May 75
Mar		1999 Market Profile (Component/Material Consumption).....Apr		COATINGS/FINISHES (See Finishes/Coatings)	
BRAKES		CD PLAYERS		COFFEEMAKERS	
1999 Market Profile (Component/Material Consumption).....Apr	19	Annual Industry Outlook: New Products Power Gains	Jan	Annual Industry Outlook: New Products Power Gains	Jan 91
Customization Options for DC MotorsOct	56	Annual Industry Outlook: New Products Power Gains	Jan	Self-Regulating Heater.....	Mar 64
BRANDS		1999 Market Profile (Share of Market)Apr		Laid-Back, Technology-Rich Designs	Mar 71
A Domed Beauty	40	CELLULAR PHONES		1999 Market Profile (Share of Market)Apr	19
Aug		Annual Industry Outlook: New Products Power Gains	Jan	Domo Delights	May 27
BREADMAKERS		67		Designing for Compliance	Aug 56
Annual Industry Outlook: New Products Power Gains	91	A Better View	Feb	Home Automation: MIT's Digital Kitchen	Sep 35
Diverse, Decorative Design Options	67	Spreading the Net	Mar	4-in-1 Custom Switch for Moulinex Mixer	Oct 38
Mar		The Shape of Safety	Jul		
1999 Market Profile (Share of Market)Apr	19				
AMCE: Editors' Choice.....	58				

1999 EDITORIAL INDEX

Issue	Page	Issue	Page	Issue	Page
COILS		QAT (Quality Action Team) Unites Tecumseh and Henkel.....	Apr 58	Better Served	Apr 63
Technology Update: Electrical Testing—Detecting Winding Problems Via Surge Testing	Mar 25	Suppliers Mirror Appliance Trends	May 41	IATC Preview: Looking Back and Looking Ahead	Apr 69
Coil Cuts Cooling Costs by 50%	Apr 46	Compressors, Refrigerants & Insulation: Cool Ideas	Jun 51	Editorial: Plan for Nashville, Now.....	May 5
Weighing the Options	Jun 57	Heat Transfer Research	Jun 54	Editorial: Going for the Gold.....	Jun 7
COLORS		Frigidaire Backs Replacement Refrigerant	Jun 55	IATC Review: Challenges and Solutions.....	Jul 21
Diverse, Decorative Design Options	Mar 67	Lining Up Behind AZ-20.....	Jun 55	Information Technology: Engineering Web-Based Digital Appliances	Jul 68
Amana Strives for Color	Mar 69	Blowing Foam	Jun 55	R&D by Long Distance	Sep 80
Laud-Back, Technology-Rich Designs	Mar 71	Home Automation: Catalysts for Connectivity	Sep 27	Record Speed	Oct 29
COMMERCIAL APPLIANCES		COMPUTERS		AMCE: Creative Connectivity	Nov 51
Cutting Edge: A Lot of Hot Air	Jan 6	Cutting Edge: A Lot of Hot Air	Jan 6	CONSUMER ELECTRONICS (see related product listings)	
Annual Industry Outlook: New Products Power Gains	Jan 91	Annual Industry Outlook: New Products Power Gains	Jan 91	Annual Industry Outlook: New Products Power Gains	Jan 91
Sensor Ensures Right Touch	Feb 45	Computer Modeling Speeds Design of New Steel Alloys	Feb 51	Editorial: Form, Function and Fun.....	Mar 7
Gas Cooktop Revolution	Feb 55	Editorial: Form, Function and Fun.....	Mar 7	Silicon Sight	Mar 42
Advanced Commercial Gas-Fired Rangefit	Feb 56	Spreading the Net	Mar 48	Tiny Tuner	Mar 54
1999 Market Profile (Share of Market)	Apr 19	Cutting Edge: Prosthetic Devices Get Smart	Apr 8	1999 Market Profile (Share of Market)	Apr 19
Wolf Range at a Glance	Apr 36	1999 Market Profile (Share of Market)	Apr 19	Editorial: IAER Effort Worth Following	Jul 5
Radiant Heating Up	Apr 57	Metalforming Advances Yield Productivity Gains	Apr 33	CONSUMER RESEARCH	
Better Served	Apr 63	Cutting Edge: Frigging the Net: For Real?	May 6	1999 AMCE Preview: Discovery Road	Aug 65
Twelfth Annual Excellence in Design Winners	May 61	Domestic Delights	May 27	CONTINUOUS IMPROVEMENT (See Quality)	
Flow of Ideas	May 75	Twelfth Annual Excellence in Design Winners	May 61	CONTROLS, PUMPS, SOLENOIDS, VALVES	
Advanced Floor Care	Jun 25	Customization Not Redesign	Jun 26	Better Firefighting	Nov 33
Cool Ideas	Jun 51	Weighing the Options	Jun 57	Wearing Well	Nov 36
Multi-Probe Diagnostics	Jul 28	Editorial: IAER Effort Worth Following	Jul 5	Learning to Defrost	Nov 37
3D Graphics for Roller Grill	Aug 41	New & Notable: Security Finger Imaging, Sunlight Readable, A Smarter Mouse	Jul 12	Innovations	Nov 37
AMCE: Excellence in Design Runners-Up	Sep 58	IATC Review: Challenges and Solutions	Jul 21	Homeowner Peeves	Nov 38
AMCE: Editors' Choice	Sep 58	The Shape of Safety	Jul 27	CONTROLS, SOLENOIDS, VALVES	
R&D: Gas Modules for Fast Food	Sep 59	Assembly Protection	Jul 44	Radiant Heating Up	Apr 47
Making Sense of Sensorless	Oct 51	Conductive Resins for Computers	Aug 25	Home Automation: Catalysts for Connectivity	Sep 27
L&G: Working Smarter	Oct 59	Different Pathways	Sep 27	AMCE: Force of the Future	Sep 37
L&G: Pro Motion	Oct 60	MIT's Digital Kitchen	Sep 35	CONTROLS, TIMERS/SENSORS/ DISPLAYS	
Technology Update: Metalforming— Rethinking Component Processing	Nov 25	AHAM: Swim and Prosper	Sep AHAM-2	Plastics: Playing a Better Part	Jan 78
Learning to Defrost	Nov 37	R&D by Long Distance	Sep 80	AHE Preview	Jan 86
Electrolux Chameleon Is 'Cool' DFE Case Study	Nov 44	Editorial: EID Adds Categories	Oct 7	Controls, Timers, Sensors & Displays: Brainstorming	Feb 21
Spreading the Net	Mar 44	High Power, Compact Design	Oct 36	Hands Free	Feb 22
Torque Teamwork	Jul 44	Smart Switches, Small Sizes	Oct 48	Variable Microwaves	Feb 22
Cutting Edge: Quick Thinking Factory Robots	Aug 8	New Wave	Oct 67	Cooktop Watches the Pot	Feb 24
New Wave	Oct 67	Cutting Edge: Controlling Drift Extends Battery Life	Nov 6	Domotecnica Preview: Still Growing	Feb 57
COMPACT AUDIO SYSTEMS		CONDENSERS		1999 Market Profile (Component/Material Consumption)	Apr 19
Annual Industry Outlook: New Products Power Gains	Jan 91	Plastics: Playing a Better Part	Jan 78	Technology Update: Controls— Turning to Fast Cycle	Apr 29
COMPACT DISCS		Turn for the Better	Mar 34	Better Served	Apr 63
Annual Industry Outlook: New Products Power Gains	Jan 91	Gas Heater A/C	Apr 53	IATC Preview: Looking Back at Looking Ahead	Apr 69
COMPACTORS		Coil Cuts Cooling Costs by 50%	Apr 56	Suppliers Mirror Appliance Trends	May 41
Annual Industry Outlook: New Products Power Gains	Jan 91	CONNECTIVITY			
From 20-Plus Parts to 2 Major Components	May 50	Home Automation: Catalysts for Connectivity	Sep 27	Cutting Edge: A Lot of Hot Air	Jan 6
Assembly Protection	Jul 44	AMCE: Creative Connectivity	Nov 51	New & Notable: World's First Gas Broiler in a Convection Oven	Jun 22
Technology Update: Metalforming— Rethinking Component Processing	Nov 25	CONNECTORS/CORDS/ CORDSETS/WIRE/CABLE			
AMCE: Creative Connectivity	Nov 51	Domotecnica Preview: Still Growing	Feb 57	Multi-Probe Diagnostics	Jul 28
COMPOSITES		1999 Market Profile (Component/Material Consumption)	Apr 49	Fasco R&D Cooks	Oct 52
In Pursuit of Future Composites	Aug 28	Connectors/Cords/Cordsets/ Wire/Cable: Cooler Connection	Apr 41	COOKERS	
COMPRESSORS/REFRIGERANTS/ INSULATION		Touch Contender	Apr 46	Twelfth Annual Excellence in Design Winners	May 61
Plastics: Playing a Better Part	Jan 78	Medical Equipment Breakthrough	Aug 33	AMCE: Excellence in Design Winners	Sep 58
AHR Preview	Jan 86	Customization Options for DC Motors	Oct 56	Calls to Action	Nov 41
1999 Market Profile (Component/Material Consumption)	Apr 19	CONSUMER			
Association Report: AHAM— AHAM's Year of Change	Apr 19	Annual Industry Outlook: New Products Power Gains	Jan 91	COOKING APPLIANCES (see related product listings)	
		Association Report: AHAM— AHAM's Year of Change	Apr 14	Cutting Edge: A Lot of Hot Air	Jan 6
				Annual Industry Outlook: New Products Power Gains	Jan 91
				Information Technology: Voice Activation—New Tool for CAD	Jan 108
				Brainstorming	Feb 21
				Asia to Drive World Appliance Growth	Feb G-3

1999 EDITORIAL INDEX

Issue	Page	Issue	Page	Issue	Page
DOMECHINICA					
Domotecnica Preview: Still Growing	Feb	57	CORRUGATED FIBERBOARD		
New & Notable: Digital Cooktop	Mar	14	1999 Market Profile		
Laid-Back, Technology-Rich Designs	Mar	71	(Component/Material Consumption)	Apr	
1999 Market Profile (Share of Market and Component/Material Consumption)	Apr	19	COST REDUCTIONS (savings)		
Metalforming Advances Yield Productivity Gains	Apr	Editorial: Caution—Learning Curve Ahead	Jan	Technology Update: Metalforming—Rethinking Component Processing	Nov
Wolf Range at a Glance	Apr	33	Technology Update: Motors—Two-Phase, Switched-Reluctance Motor Control	Jan	25
Better Served	Apr	36	Plastics: Playing a Better Part	Jan	19
IATC Preview: Cooking Appliances	Apr	63	Annual Industry Outlook: New Products Power Gains	Jan	78
Domo Delights	May	69	New Products Power Gains	Jan	91
Twelfth Annual Excellence in Design Winners	May	27	Information Technology: Voice Activation—New Tool for CAD	Jan	108
By the Way: The Next Great New Appliance	May	61	Brainstorming	Feb	21
Editorial: Going for the Gold	Jun	116	Cooktop Watches the Pot	Feb	24
New & Notable: First Twin of Its Kind, First Steam Oven for the U.S.		7	Technology Update: Molding—Thinwall a Cost Cutter	Feb	25
World's First Gas Broiler in a Convection Oven	Jun	20	More on Board	Mar	25
Seal Solves Stove Failure Problem	Jul	54	Two Challenges: Fit and Efficiency	Mar	51
A Domed Beauty	Aug	40	Cooler Connection	Apr	55
AMCE: Conference Program	Aug	66	Tough Contender	Apr	68
New & Notable: Stainless Steel Behind Glass	Sep	14	Gas Heater A/C	Apr	7
Maytag Finds 'Ol Lonely's 'Twin' Plus Award-Winning Twin Bakers	Sep	16	Dual Capacities	Apr	7
Home Automation: MIT's Digital Kitchen	Sep	35	Radiant Heating Up	Apr	8
AMCE: Focus of the Future	Sep	37	Listening Then Innovating	May	25
AMCE: Conference Program	Sep	38	Less Is Better	May	29
AHAM: Regulations at a Glance	Sep	AHAM-7	Switch Design Evolution	May	34
AHAM: Setting the Standard(s)	Sep	AHAM-8	'Spot Soak' Switch Goes Mainstream	May	38
AMCE: Excellence in Design Runners-Up	Sep	58	Customization Not Redesign	Jun	41
R&D: Gas Modules for Fast Food	Sep	84	'Ruggedized' Blower for Gas Baseboard Heaters	Jun	46
Record Speed	Oct	29	Weighing the Options	Jun	48
Editorial: Wanted—Designs for the Twentysomethings	Nov	5	Trained Teams/Lean Design	Jul	52
Technology Update: Metalforming—Rethinking Component Processing	Nov	25	Fastener Standards for the 21st Century	Jul	53
AMCE: Creative Connectivity	Nov	51	A Virtual Factory for Assembly Processes	Jul	55
COOKTOPS AND BURNERS (see related product listings)					
Annual Industry Outlook: New Products Power Gains	Jan	91	Cost-Effective Adhesive Assemblies	Jul	57
Cooktop Watches the Pot	Feb	24	Assembly by Casting	Jul	39
Cooktops & Burners: Gas Cooktop Revolution	Feb	55	For Speaker Assembly		40
Advanced Commercial Gas-Fired Rangefit	Feb	56	Strong Bond in Less Time	Jul	40
Domotecnica Preview: Still Growing	Feb	57	Pioneering Contract Gasketing	Jul	42
New & Notable: Digital Cooktop	Mar	14	Product Launch Time Cut	Aug	46
Show Stoppers	May	32	Decorating Options	Aug	48
AMCE Preview: Conference Program	Aug	66	Steps Cut Costs	Aug	50
AMCE: Conference Program	Sep	38	Brighter Display for Xerox Printer	Oct	52
Cooktop Sensing System	Oct	32	Smart Switches, Small Sizes	Oct	56
Editorial: Wanted—Designs for the Twentysomethings	Nov	5	Pump Maker Recreates Design	Nov	57
COOLING DISPLAY CABINETS					
Electrolux Chameleon Is 'Cool'		5	Solid Block Painting	Nov	58
DFE Case Study	Nov	44	CROSS-FUNCTIONAL TEAMS		58
COPIERS					
Annual Industry Outlook: New Products Power Gains	Jan	91	QAT (Quality Action Team) Unites Tecumseh and Henkel	Apr	5
COPPER					
1999 Market Profile (Component/Material Consumption)	Apr	19	Editorial: Plan for Nashville, Now	May	5
Cooler Connection	Apr	41	DECORATIVE TRIM/NAMEPLATES/LABELS/GRAFICS		5
Technology Update: Fastening—Magnetic Pulse Welding Impacts Appliance Industry	Aug	22	Diverse, Decorative Design Options	Mar	55
Technology Update: Metalforming—Rethinking Component Processing	Nov	25	Amana Strives for Color	Mar	56
CORDLESS (Rechargeable) APPLIANCES					
Plastics: Playing a Better Part	Jan	91	1999 Market Profile	Apr	57
Fighting Vampires	Mar	78	Suppliers Mirror Appliance Trends	May	58
		41	Decorative Trim, Nameplates, Labels, Graphics: New Steel Designs for Handles	Aug	59
		32	Product Launch Time Cut	Aug	60
		5	In-Mold Process	Aug	61
		44	Decorating Options	Aug	62
		91	A Domed Beauty	Aug	63
		91	Costs Cut As Quality Rises	Aug	64
		19	3D Graphic for Roller Grill	Aug	65
		41	'True-to-Form' Film Ensures Consistency	Aug	66
		19	Steps Cut Costs	Aug	67
		41	Calls to Action	Nov	68
		22	DEFOGGERS		68
		25	Annual Industry Outlook: New Products Power Gains	Jan	69
		22	Technology Update: Software—Virtual Reality for Design and Manufacturing	May	69
		25	Design Champs	Mar	70
		25	DEHUMIDIFIERS		70
		22	Annual Industry Outlook: New Products Power Gains	Jan	71
		25	Technology Update: Metalforming—Rethinking Component Processing	Nov	71
		22	Twelfth Annual Excellence in Design Winners	May	72
		25	Twelfth Annual Excellence in Design Winners	May	73
		22	Flow of Ideas	May	74
		25	By the Way: The Next Great New Appliance	May	75
		22	Cutting Edge: A Thread of Hope for Processor Flexibility	Jun	76
		25			76

1999 EDITORIAL INDEX

Issue	Page	Issue	Page	Issue	Page
New & Notable: Refrigeration for the Outdoors. Visual Cues for Simpler Dishwashing. First Twin of Its Kind. First Steam Oven for the U.S. Mega Wine Storage. World's First Gas Broiler in a Convection Oven.....Jun	20	Better FirefightingNov	33	DISHWASHERS	
Advanced Floor CareJun	25	Wearing WellNov	36	Annual Industry Outlook:	
Mini Fans Protect CPUs.....Jun	29	Calls to ActionNov	41	New Products Power GainsJan	91
'Ruggedized' Blowers for Gas Baseboard HeatersJun	30	Maytag Adds RISD ResourcesNov	42	Asia to Drive World Appliance Growth.....Feb	G-3
Joining Systems Save Time. Money. LivesJun	37	Electrolux Chameleon Is 'Cool'	44	New Marks for Europe.....Feb	G-7
Weighing the OptionsJun	57	DFE Case StudyNov	46	Editorial: Small Could Be BigApr	7
Technology Update: Motors—A New StartJul	23	Planning the Transition from 2D to 3DNov	51	New & Notable: Shhhhh!Apr	12
Trained Teams/Lean DesignJul	39	AMCE: Creative ConnectivityNov	51	1999 Market Profile (Share of Market and Component/Material Consumption)Apr	19
Fastener Standards for the 21st CenturyJul	40	DESIGN FOR ASSEMBLY/ MANUFACTURABILITY	51	Better ServedApr	63
A Virtual Factory for Assembly ProcessesJul	42	Trained Teams/Lean DesignJul	39	IATC Preview: Looking Back at Looking AheadApr	69
One-Stop Concept/Manufacture SourceJul	43	Conductive Resins for ComputersAug	25	Domo DelightsMay	27
Torque TeamworkJul	44	DESIGN FOR DISASSEMBLY	23	Listening Then InnovatingMay	51
Cost-Effective Adhesive AssembliesJul	46	Technology Update: Software—Virtual Reality for Design and ManufacturingMay	46	Twelfth Annual Excellence in Design WinnersMay	61
Conductive Resins for ComputersAug	25	Just the Ticket for Printer AssemblyJul	44	Flow of IdeasMay	75
One-Piece MarvelsAug	26	Electrolux Chameleon Is 'Cool'	46	Editorial: Going for the GoldJun	7
Lawmakers Pose 3-Part ChallengeAug	31	DFE Case StudyNov	44	Visual Cues for Simpler DishwashingJun	20
Achieving Better Plastic GearsAug	32	DESIGN FOR ENVIRONMENT	5	IATC Review: Challenges and SolutionsJul	21
Medical Equipment BreakthroughAug	33	Technology Update: Software—Virtual Reality for Design and ManufacturingMay	44	A Domed BeautyAug	40
New Steel Designs for HandlesAug	35	Just the Ticket for Printer AssemblyJul	46	Home Automation:	
Product Launch Time CutAug	36	Electrolux Chameleon Is 'Cool'	46	Catalysts for ConnectivitySep	27
Decorating OptionsAug	38	DFE Case StudyNov	44	Home Automation: Different PathwaysSep	33
A Domed BeautyAug	40	DESIGN TO MARKET CYCLE	25	AHAM: Regulations at a GlanceSep	AHAM-7
3D Graphic for Roller GrillAug	41	Technology Update: Molding—Thinwall A Cost CutterFeb	67	AMCE: Excellence in Design WinnersSep	58
'True-to-Form' Film Ensures ConsistencyAug	42	Diverse Decorative Design OptionsMar	36	AMCE: Editors' ChoiceSep	58
Steps Cut CostsAug	44	Product Launch Time CutAug	54	Calls to ActionNov	41
Cold ValueAug	45	Asian ConnectionAug	29	DISPENSING EQUIPMENT	
Getting Ready for IEC 60335Aug	47	'Chain Gang'Nov	48	From 20-Plus Parts to 2 Major ComponentsMay	50
Designing for ComplianceAug	50	DESIGN FOR RECYCLING	52	DISPLAYS (See Switches/Relays/Displays)	
AMCE: Conference ProgramAug	56	Technology Update: Software—Virtual Reality for Design and ManufacturingMay	23	DISPOSERS	
New & Notable: Black and Stainless Beauty. Creative Sewing. 100,000 Plus BTUs. Power Cleaning. Stainless Steel Behind Glass. Double the Capacity. Four Tools in One. At-Home Shower SpaSep	70	Electrolux Chameleon Is 'Cool'	70	Annual Industry Outlook:	
Home Automation:		DFE Case StudyNov	44	New Products Power GainsJan	91
Catalysts for ConnectivitySep	72	DESKTOPS	44	Domotecnica Preview: Still GrowingFeb	57
AMCE: Force of the FutureSep	73	R&D by Long DistanceSep	80	1999 Market Profile (Share of Market)Apr	19
AMCE: Conference ProgramSep	37	DIAGNOSTICS	21	DOE	
AMCE: Educational ProgramsSep	38	BrainstormingFeb	52	Editorial: Going for the GoldJun	7
AHAM: Setting the Standard(s)Sep	46	Expo Targets Solutions for Steel Service CentersFeb	57	IATC Review: Challenges and SolutionsJul	21
Grounded for Powder		Spreading the NetMar	48	Association Report: AHAM—Issue-Driven AHAM Focuses on Energy, Safety, and the EnvironmentAug	12
R&D by Long DistanceSep	80	Multi-Probe DiagnosticsJul	46	AHAM: Regulations at a GlanceSep	AHAM-7
R&D for the MillenniumSep	81	Home Automation:	21	Association Report: NHMA—Housewares Top Brass Tackle Tough Issues in UnisonJan	12
R&D: Worldwide InputSep	83	Catalysts for ConnectivitySep	8	Asia to Drive World Appliance GrowthFeb	G-3
R&D & Gas Modules for Fast FoodSep	84	DIAMONDS	27	EDM	
Technology Update: Adhesives—High-Performance Hot MeltsSep	87	Cutting Edge: Diamonds Show New FacetMar	52	Editorial: Caution—Learning Curve AheadJan	5
Frankly Speaking: Call to Action—Get Involved in Global StandardsSep	132	DICTION EQUIPMENT	91	ELECTRICAL MANUFACTURING & COIL WINDING	
Editorial: EID Adds CategoriesOct	7	Annual Industry Outlook:	21	Technology Update: Electrical Testing—Detecting Winding Problems Via Surge TestingMar	25
Record SpeedOct	29	New & Notable: Digital CooktopMar	14	ELECTRICAL MANUFACTURING, INSULATING & COIL WINDING:	
Cooktop Sensing SystemOct	32	Information Technology: Engineering Web-Based Digital AppliancesJul	68	Supplement to AM OctoberOct	EMCW-1
High Power, Compact DesignOct	36	Home Automation:	35	EIC/EMCW '99 Expo PreviewOct	EMCW-3
New Look for Curvette SeriesOct	44	MIT'S Digital KitchensSep	51	EIC/EMCW '99 Exhibitor RosterOct	EMCW-4
Customization Options for DC MotorsOct	56	Smart MotorsOct	56	EIC/EMCW '99 Award WinnersOct	EMCW-4
L&G: Working SmarterOct	59	DSPs to SoarOct	66	Conference At a GlanceOct	EMCW-7
L&G: Going VerticalOct	65	DIGITAL VERSATILE DISC PLAYERS	91	Resin Selection for Coil FormsOct	EMCW-8
Information Technology: Protecting Intellectual Capital by Managing InformationOct	84	Annual Industry Outlook:	91	Understanding Emerging Magnet TechnologiesOct	EMCW-11
Editorial: Wanted—Designs for the TwentysomethingsNov	5	New Products Power GainsJan	91	Lubrication from the Coil Winding PerspectiveOct	EMCW-13
New & Notable: Propagating Seeds Electronically. Team Boomer Dedicated to Cystic Fibrosis. 8-Position Handle. Hearthside Comfort Pump Maker Recreates DesignNov	84	DIRECT-TO-HOME SATELLITE SYSTEMS	91	Wire LubricationOct	EMCW-15
Reducing Washer Vibrations and NoiseNov	27	Annual Industry Outlook:	91	EIC/EMCW Product RoundupOct	EMCW-16
Reducing Washer Vibrations and NoiseNov	30	New Products Power GainsJan	91	Air Wound CoilsOct	EMCW-17
		Flow of IdeasMay	75	Balancing and MeasuringOct	EMCW-19
				ELectRICITY	
				Fighting VampiresMar	41

1999 EDITORIAL INDEX

Issue	Page	Issue	Page	Issue	Page		
ELECTRONIC NOSE							
Home Automation: MIT's Digital Kitchen.....	Sep	Fast Track.....	Aug	59	EXERCISERS		
Association Report: ARI— 'You've Got Mail'.....	Feb	AHAM: Setting the Standard(s).....	Sep	AHAM-8	Steps Cut Costs.....		
Cooktop Watches the Pot.....	Feb	Cutting Edge: Cook College Graduates an Intelligent Microwave.....	Oct	8	R&D for the Millennium.....		
Cutting Edge: Diamonds Show New Facet.....	Mar	Cooktop Sensing System.....	Oct	32	Annual Industry Outlook: New Products Power Gains.....		
Cutting Edge: Prosthetic Devices Get Smart.....	Mar	Solid Block Painting.....	Nov	32	AHAM: The World of Standards.....		
Cooler Connection.....	Apr	Learning to Defrost.....	Nov	37	AHAM-6		
Better Served.....	Apr	Electrolux Chameleon Is 'Cool' DFE Case Study.....	Nov	44	EXTRACTORS		
Suppliers Mirror Appliance Trends.....	May	Information Technology: Voice Activation—New Tool for CAD.....	Jan	108	1999 Market Profile (Share of Market).....		
Twelfth Annual Excellence in Design Winners.....	May	Editorial: New Leader, New Location: Same Questions, Same Challenges.....	Feb	7	FANS (Consumer)		
Flow of Ideas.....	May	Gas Cooktop Revolution.....	Feb	55	Plastics: Playing a Better Part.....		
Cutting Edge: A Thread of Hope for Processor Flexibility.....	Jun	Predicting Performance.....	Mar	29	Editorial: Form, Function and Fun.....		
Advanced Floor Care.....	Jun	Two Challenges: Fit and Efficiency.....	Mar	62	Twelfth Annual Excellence in Design Winners.....		
Cutting Edge: Keep the Cache and Run.....	Jul	IATC Marks 50th.....	Mar	88	Information Technology: Engineering Web-Based Digital Appliances.....		
Technology Update: Motors—A New Start.....	Jul	Advanced Floor Care.....	Jun	25	AMCE: Excellence in Design Runners-Up.....		
The Shape of Safety.....	Jul	Joining Systems Save Time, Money, Lives.....	Jun	37	R&D: Worldwide Input.....		
For Speaker Assembly, Strong Bond in Less Time.....	Jul	One-Stop Concept/Manufacture Source.....	Jul	43	FANS (industrial) AND BLOWERS (See Motors, Fans & Blowers)		
Editorial: R&D Glass Half Full.....	Sep	Information Technology: Engineering Web-Based Digital Appliances.....	Jul	68	FASTENERS/ADHESIVES/JOINING		
Cooktop Sensing System.....	Oct	Editorial: AHAM Alive and Well in Washington.....	Aug	7	AHR Preview.....		
New Wave.....	Oct	Cutting Edge: Quick Thinking Factory Robots.....	Aug	7	Technology Update: Molding— Thinwall a Cost Cutter.....		
Cutting Edge: Controlling Drift Extends Battery Life.....	Nov	Cutting Edge: Quick-Thinking Factory Robots.....	Aug	8	1999 Market Profile (Component/ Material Consumption).....		
New & Notable: Propagating Seeds Electronically.....	Nov	AHAM: Swim and Prosper.....	Sep	8	IATC Preview: Looking Back at Looking Ahead.....		
Learning to Defrost.....	Nov	R&D: A Think Tank.....	Sep	12	Fasteners/Adhesives/Joining: Joining Systems Save Time, Money, Lives.....		
ELEVATORS							
Joining Systems Save Time, Money, Lives.....	Jun	Cutting Edge: Controlling Drift Extends Battery Life.....	Nov	6	Accelerating Time to Market for Adhesives.....		
EMI/RFI							
Customization Options for DC Motors.....	Oct	37	Adhesives Provide HVAC with Green Strength.....	Jun	44		
ENERGY EFFICIENCY (savings)							
Technology Update: Motors— Two-Phase, Switched-Reluctance Motor Control.....	Jan	1999 Market Profile (Component/ Material Consumption).....	Apr	19	Fastener Standards Ready for the 21st Century.....		
Annual Industry Outlook: New Products Power Gains.....	Jan	Joining Systems Save Time, Money, Lives.....	Jun	37	Torque Teamwork.....		
Brainstorming.....	Feb	New & Notable: First 4-Cycle Gas Chainsaw.....	May	7	Just the Ticket for Printer Assembly.....		
Hands Free.....	Feb	L&G: Working Smarter.....	Oct	8	Cost-Effective Adhesive Assemblies.....		
Variable Microwaves.....	Feb	L&G: Going Vertical.....	Oct	59	For Speaker Assembly, Strong Bond in Less Time.....		
Cooktop Watches the Pot.....	Feb	19	AMCE: Conference Program.....	Aug	50		
Advanced Commercial Gas-Fired Range-top.....	Feb	ENVIRONMENTAL ISSUES		65	AMCE: Conference Program.....	Sep	38
Turn for the Better.....	Mar	Annual Industry Outlook: New Products Power Gains.....	Jan	91	Technology Update: Adhesives— High-Performance Hot Melts.....	Sep	87
Variable Speed on High.....	Mar	New & Notable: Green Heat Pumps.....	Mar	14	Reducing Washer Vibration and Noise.....	Nov	30
Direct-to-Water Heat.....	Mar	Editorial: Going for the Gold.....	Jun	7	FAUCETS		
New & Notable: Shhhhhh!.....	Apr	22	Hands Free.....	Feb	22		
Association Report: AHAM— AHAM's Year of Change.....	Apr	Adhesives Provide HVAC with Green Strength.....	Jun	46			
Dual Capacities.....	Apr	56	FAXES		40		
Coil Cuts Cooling Costs by 50%.....	Apr	Editorial: IAER: Effort Worth Following.....	Jul	5			
Radiant Heating Up.....	Apr	34	Annual Industry Outlook: New Products Power Gains.....	Jan	44		
Domo Delights.....	May	Association Report: ARI—Opposing Europe or Early HCFC Phaseout.....	Jul	14	R&D by Long Distance.....	Sep	46
Suppliers Mirror Appliance Trends.....	May	60	1999 Market Profile (Component/Material Consumption).....	Apr	46		
Less Is Better.....	May	65	FIBERBOARD		19		
Editorial: Going for the Gold.....	Jun	Association Report: AHAM— Issue-Driven AHAM Focuses on Energy, Safety, and the Environment.....	Aug	40			
Mini Fans Protect CPUs.....	Jun	12	1999 Market Profile (Component/Material Consumption).....	Apr	8		
'Ruggedized' Blower for Gas Baseboard Heaters.....	Jun	14	FIBER OPTICS		19		
Cool Ideas.....	Jun	A Domed Beauty.....	Aug	47			
Frigidaire Backs Replacement Refrigerant.....	Jun	55	Cutting Edge: Building Better Biosensors.....	Feb	8		
Association Report: AHAM— Issue-Driven AHAM Focuses on Energy, Safety, and the Environment.....	Aug	Cold Value.....	Aug	59			
Technology Update: Fastening— Magnetic Pulse Welding Impacts Appliance Industry.....	Aug	56	FILTERS		41		
Cold Value.....	Aug	Fast Track.....	Aug	8			
		57	Suppliers Mirror Appliance Trends.....	May	FINISHES/COATINGS		
		27	Enviroscore: Wood-Pellet Burner Turns Down Global Heat.....	Sep	71		
		41	Powder Coating Bright.....	Sep	75		
		52	The Future Is Powder.....	Sep	59		
		52	L&G: Working Smarter.....	Oct	60		
		7	L&G: Pro Motion.....	Oct	28		
		29	'Green' Steel Sheet.....	Nov	32		
		30	Solid Block Painting.....	Nov	32		
		51	Electrolux Chameleon Is 'Cool' DFE Case Study.....	Nov	44		
		55	By the Way: Two Faces Eye the Future.....	Nov	44		
		55	EPA		44		
		12	IATC Review: Challenges and Solutions.....	Jul	44		
		12	Association Report: AHAM— Issue-Driven AHAM Focuses on Energy, Safety, and the Environment.....	Aug	68		
		12	L&G: Working Smarter.....	Oct	21		
		22	ERGONOMICS		21		
		47	New & Notable: Double-Sided Printing.....	Apr	12		

1999 EDITORIAL INDEX

Issue	Page	Issue	Page
FINITE ELEMENT ANALYSIS		FURNACES	
Predicting Performance	Mar	Annual Industry Outlook: New Products Power Gains	Jan
Turn for the Better	Mar	Direct Vent	Apr
Joining Systems Save Time, Money, Lives	Jun	1999 Market Profile (Share of Market and Component/Material Consumption) ..	Apr
Reducing Washer Vibration and Noise	Nov	Record Speed	Oct
FIRE ALARM SYSTEMS		Association Report: GAMA—Sixty-Five and Going Strong	Nov
Turning to Fast Track	Apr	FUZZY LOGIC	
FIREPLACES		Brainstorming	Feb
Annual Industry Outlook: New Products Power Gains	Jan	Laid-Back, Technology-Rich Designs	Mar
Better Served	Apr	GAMES	
FITNESS EQUIPMENT		MEMS on the Move	Feb
Twelfth Annual Excellence in Design Winners	May	A Better View	Feb
AMCE: Excellence in Design Runners-Up	Sep	GAS APPLIANCES (see related product listings)	
Editorial: EID Adds Categories	Oct	Annual Industry Outlook: New Products Power Gains	Jan
FLASHLIGHTS/RELATED PRODUCTS		Gas Cooktop Revolution	Feb
Plastics: Playing a Better Part	Jan	New & Notable: Stainless-Steel Grill	Mar
FLOOR CARE		1999 Market Profile (Share of Market and Component/Material Consumption) ..	Apr
Annual Industry Outlook: New Products Power Gains	Jan	Gas Heater A/C	Apr
Sensor Ensures Right Touch	Feb	'Tank-in-Tank'	Apr
1999 Market Profile (Share of Market)	Apr	Better Served	Apr
Association Report: NHMA—Small Appliance Showcase Created for Year 2000 Housewares Show	May	'Ruggedized' Blower for Gas Baseboard Heaters	Jun
Twelfth Annual Excellence in Design Winners	May	New Blues and Other News	Aug
Advanced Floor Care	Jun	R&D: Gas Modules for Fast Food	Sep
Pioneering Contract Gasketing	Jul	Record Speed	Oct
Plastics for Floor Care	Aug	GAS STOVES AND INSERTS	
Association Report: NHMA—Make It Home to the 2000 Housewares Show	Sep	1999 Market Profile (Share of Market)	Apr
Making Sense of Sensorless	Oct	GASKETS AND SEALS	
FLOOR POLISHERS		1999 Market Profile (Component/Material Consumption)	Apr
1999 Market Profile (Share of Market)	May	Suppliers Mirror Appliance Trends	May
FOAM		Gaskets & Seals: Pioneering Contract Gasketing	Jul
Blowing Foam	Jun	Seal Solves Stove Failure Problem	Jul
Better Firefighting	Nov	GEARS	
Electrolux Chameleon Is 'Cool'	Nov	1999 Market Profile (Component/Material Consumption)	Apr
DFE Case Study	Nov	Achieving Better Plastic Gears	Aug
FOOD PREPARATION APPLIANCES (see related product listings)		GENERATORS	
Laid-Back, Technology-Rich Designs	Mar	New Wave	Oct
R&D: Gas Modules for Fast Food	Sep	GLASS/GLASS CERAMIC	
Cutting Edge: Cook College Graduates an Intelligent Microwave	Oct	Domotecnica Preview: Still Growing	Feb
4-in-1 Custom Switch for Moulinex Mixer	Oct	1999 Market Profile (Component/Material Consumption)	Apr
Calls to Action	Nov	GLOBAL (international)	
FOOD PRESERVATION (See Refrigerators/Freezers)		Annual Industry Outlook: New Products Power Gains	Jan
FOOD PROCESSORS		Special Section: Exclusive Global Report—Majors	Feb
Annual Industry Outlook: New Products Power Gains	Jan	Asia to Drive World Appliance Growth	Feb
Diverse, Decorative Design Options	Mar	The World at a Glance	Feb
1999 Market Profile (Share of Market)	Apr	New Marks for Europe	Feb
FOODSERVICE APPLIANCES		Europe at a Glance	Feb
Annual Industry Outlook: New Products Power Gains	Jan	Americas at a Glance	Feb
1999 Market Profile (Share of Market)	Apr	Asia at a Glance	Feb
Metalforming Advances		Online Buying and Selling	Feb
Yield Productivity Gains	Apr	Domotecnica Preview: Still Growing	Feb
Wolf Range at a Glance	Apr	Editorial: Small Could Be Big	Apr
3D Graphic for Roller Grill	Aug	1998: The Growth Year	Apr
R&D: Gas Modules for Fast Food	Sep	IATC Preview: Looking Back at Looking Ahead	Apr
FOOD-TESTING APPLIANCES		Domotecnica Review: Domo Delights	May
By the Way: The Next Great New Appliance	May	POPCORN Research Advances	May
FOUNTAINS (drinking)		Microwave Cooking	May
Hands Free	Feb	Show Stoppers	May
FREEZERS (See Refrigerators/Freezers)		Globalization: The Second Decade	May
1999 Market Profile (Share of Market)	Apr	AHAM, CECECD Meetings	May
FRYERS		Signal Turning Point	May
Laid-Back, Technology-Rich Designs	Mar	Global Thoughts	May
GRILLS/GRIDDLIES		Suppliers Mirror Appliance Trends	May
By the Way: Playing a Better Part	May	Advanced Floor Care	Jun
GRILLS (barbecue)		Association Report: ARI—Opposing Europe on Early HCFC Phaseout	Jul
Hands Free	Feb	Trained Teams/Lean Design	Jul
GRILLS (barbecue)		Seal Solves Stove Failure Problem	Jul
1999 Market Profile (Share of Market)	Apr	Association Report: AHAM—Issue-Driven AHAM Focuses on Energy, Safety, and the Environment	Aug
GYM EQUIPMENT		Technology Update: Fastening—Magnetic Pulse Welding Impacts Appliance Industry	Aug
Annual Industry Outlook: New Products Power Gains	Jan	Plastics for Floor Care	Aug
Better Served	Apr	Product Launch Time Cut	Aug
HAND HELD TOOLS		Getting Ready for IEC 60335	Aug
Twelfth Annual Excellence in Design Winners	May	Asian Connection	Aug
AMCE: Excellence in Design Runners-Up	Sep	European Update	Aug
Editorial: EID Adds Categories	Oct	ISO 9000 Update	Aug
HARDWARE		Enviroscene: Wood-Pellet Burner Turns Down Global Heat	Sep
Plastics: Playing a Better Part	Jan	Home Automation: Catalysts for Connectivity	Sep
HARDWARE		Home Automation: Different Pathways	Sep
Annual Industry Outlook: New Products Power Gains	Jan	AHAM: The World of Standards	AHAM-6
Sensor Ensures Right Touch	Feb	Merger Mania	Sep
1999 Market Profile (Share of Market)	Apr	R&D: A Think Tank	Sep
Association Report: NHMA—Small Appliance Showcase Created for Year 2000 Housewares Show	May	R&D: A Weighty Challenge	Sep
Twelfth Annual Excellence in Design Winners	May	R&D by Long Distance	Sep
Advanced Floor Care	Jun	R&D for the Millennium	Sep
Pioneering Contract Gasketing	Jul	R&D: Worldwide Input	Sep
Plastics for Floor Care	Aug	Frankly Speaking: Call to Action—Get Involved in Global Standards	Sep
Association Report: NHMA—Make It Home to the 2000 Housewares Show	Sep	4-in-1 Custom Switch for Moulinex Mixer	Oct
Making Sense of Sensorless	Oct	Smart Motors	Oct
FLOOR CARE		Editorial: Wanted—Designs for the Twentysomethings	Nov
Annual Industry Outlook: New Products Power Gains	Jan	Association Report: GAMA—Sixty-Five and Going Strong	Nov
Sensor Ensures Right Touch	Feb	Solid Block Painting	Nov
1999 Market Profile (Share of Market)	Apr	Calls to Action	Nov
Association Report: NHMA—Small Appliance Showcase Created for Year 2000 Housewares Show	May	Electrolux Chameleon Is 'Cool'	Nov
Twelfth Annual Excellence in Design Winners	May	DFE Case Study	Nov
Advanced Floor Care	Jun	Solid Modeling Cuts Time to Market by One-Third for Matsushita	Nov
Pioneering Contract Gasketing	Jul	By the Way: Two Faces Eye the Future	Nov
Plastics for Floor Care	Aug	GLUE GUNS	
Association Report: NHMA—Make It Home to the 2000 Housewares Show	Sep	By the Way: Rising Design Stars	Feb
Making Sense of Sensorless	Oct	Self-Regulating Heater	Mar
FLUID HANDLING		Design Champs	Mar
Annual Industry Outlook: New Products Power Gains	Jan	GOVERNMENT RELATIONS	
Diverse, Decorative Design Options	Mar	Editorial: New Leader, New Location: Same Questions, Same Challenges	Feb
1999 Market Profile (Share of Market)	Apr	Association Report: AHAM—AHAM's Year of Change	Apr
FOOD PRESERVATION		Editorial: AHAM Alive and Well in Washington	Aug
(See Refrigerators/Freezers)		Association Report: AHAM—Issue-Driven AHAM Focuses on Energy, Safety, and the Environment	Aug
FOOD PROCESSORS		Editorial: R&D Glass Half Full	Sep
Annual Industry Outlook: New Products Power Gains	Jan	AHAM: Swim and Prosper	Sep
Diverse, Decorative Design Options	Mar	Association Report: GAMA—Sixty-Five and Going Strong	Nov
1999 Market Profile (Share of Market)	Apr	GRILLS/GRIDDLIES	
FOODSERVICE APPLIANCES		Laid-Back, Technology-Rich Designs	Mar
Annual Industry Outlook: New Products Power Gains	Jan	New & Notable: Say 'Cheese'	Apr
1999 Market Profile (Share of Market)	Apr	1999 Market Profile (Share of Market)	Apr
Metalforming Advances		3D Graphic for Roller Grill	Aug
Yield Productivity Gains	Apr	R&D: Gas Modules for Fast Food	Sep
Wolf Range at a Glance	Apr	GRILLS (barbecue)	
3D Graphic for Roller Grill	Aug	New & Notable: Stainless-Steel Grill	Mar
R&D: Gas Modules for Fast Food	Sep	1999 Market Profile (Share of Market)	Apr
FOOD-TESTING APPLIANCES		Better Served	Apr
By the Way: The Next Great New Appliance	May	New & Notable: 100,000 Plus BTUs	Sep
FOUNTAINS (drinking)		New & Notable: Gourmet Grilling	Oct
Hands Free	Feb	Technology Update: Metalforming—Rethinking Component Processing	Nov
FREEZERS (See Refrigerators/Freezers)		GRIPS	
1999 Market Profile (Share of Market)	Apr	Plastics: Playing a Better Part	Jan
FRYERS		1999 Market Profile (Component/Material Consumption)	May
Laid-Back, Technology-Rich Designs	Mar		

1999 EDITORIAL INDEX

Issue	Page	Issue	Page	Issue	Page			
HAIRDRYERS								
Self-Regulating Heater.....	Mar	64	Home Automation: MIT's Digital Kitchen	Sep	35	Association Report: GAMA—Sixty-Five and Going Strong	Nov	19
1999 Market Profile (Share of Market)	Apr	19	AMCE: Force of the Future	Sep	37	Technology Update: Metalforming—Rethinking Component Processing	Nov	25
HAIR SETTERS								
1999 Market Profile (Share of Market)	Apr	19	AMCE: Educational Programs	Sep	46	'Chain Gang'	Nov	29
HANDLES AND KNOBS								
1999 Market Profile (Component/Material Consumption)	Apr	19	HOME INFORMATION APPLIANCES		91	Homeowner Peeves	Nov	38
New Steel Designs for Handles	Aug	35	Annual Industry Outlook: New Products Power Gains	Jan	By the Way: Two Faces Eye the Future	Nov	68	
New & Notable: 8-Position Handle	Nov	12	HOME RADIOS		91	HYDRONICS		
Calls to Action	Nov	41	Annual Industry Outlook: New Products Power Gains	Jan	Radiant Heating Up	Apr	57	
HARNESSES								
Suppliers Mirror Appliance Trends	May	41	HOME THEATER-IN-A-BOX		91	ICEMAKERS		
HDTV								
Annual Industry Outlook: New Products Power Gains	Jan	91	Annual Industry Outlook: New Products Power Gains	Jan	Turn for the Better	Mar	34	
HEADSETS								
Annual Industry Outlook: New Products Power Gains	Jan	91	HOUSEWARES (See Small Electrics)		91	1999 Market Profile (Share of Market)	Apr	19
HEALTH CARE APPLIANCES								
Annual Industry Outlook: New Products Power Gains	Jan	91	HOUSINGS		25	Better Served	Apr	63
Laid-Back, Technology-Rich Designs	Mar	91	Plastics: Playing a Better Part	Jan	Icemakers Pose 3-Part Challenge	Aug	31	
Association Report: NHMA—Small Appliance Showcase Created for Year 2000 Housewares Show	May	91	Technology Update: Molding—Thinwall a Cost Cutter	Feb	IGNITERS			
Association Report: NHMA—Make It Home to the 2000 Housewares Show	Sep	71	Customization Not Redesign	Jun	AHR Preview	Jan	86	
HEARTH PRODUCTS								
Association Report: GAMA—Sixty-Five and Going Strong	Nov	19	HOUSEWARES (See related product listings)		91	New & Notable: Direct Vent	Apr	12
HEAT EXCHANGERS								
AHR Preview	Jan	19	HVAC (see related product listings)		78	1999 Market Profile (Component/Material Consumption)	Apr	19
Direct Vent	Apr	86	AHR Preview	Jan	Gas Heater A/C	Apr	53	
Gas Heater A/C	Apr	12	Annual Industry Outlook: New Products Power Gains	Jan	Suppliers Mirror Appliance Trends	May	51	
'Tank-in-Tank'	Apr	53	Domotecnica Preview: Still Growing	Feb	Record Speed	Oct	29	
R&D: Worldwide Input	Sep	54	New & Notable: Green Heat Pumps	Mar	Cooktop Sensing System	Oct	32	
HEAT PUMPS								
(See Air Conditioners and Heat Pumps)		83	Two Challenges: Fit and Efficiency	Mar	IMAGING			
HEAT TRANSFER								
Heat Transfer Research	Jun	12	Laid-Back, Technology-Rich Designs	Mar	New & Notable: New Imaging Technology	May	8	
HEATERS								
Plastics: Playing a Better Part	Jan	1999 Market Profile (Share of Market)	Apr	Customization Options for DC Motors	Oct	56		
Annual Industry Outlook: New Products Power Gains	Jan	17	Association Report: NHMA—Make It Home to the 2000 Housewares Show	Sep	INFORMATION AGE (Technology)			
New Marks for Europe	Feb	19	HVAC (see related product listings)		17	Editorial: Caution—Learning Curve Ahead	Jan	5
Two Challenges: Fit and Efficiency	Mar	19	AHR Preview	Jan	Association Report: ARI—'You've Got Mail'	Feb	12	
Replaceable Heating Element	Mar	54	Annual Industry Outlook: New Products Power Gains	Jan	The Challenge of CAE			
Self-Regulating Heater	Mar	54	Domotecnica Preview: Still Growing	Feb	Data Management	Apr	86	
1999 Market Profile (Share of Market)	Apr	54	New & Notable: Variable Speed on High	Mar	Cutting Edge: Quick Thinking	Aug	8	
Gas Heaters A/C	Apr	54	Two Challenges: Fit and Efficiency	Mar	Factory Robots	Aug	62	
'Ruggedized' Blower for Gas Baseboard Heaters	Jun	54	Laid-Back, Technology-Rich Design	Mar	Information Technology: Protecting Intellectual Capital by	Oct	71	
HEATING ELEMENTS								
AHR Preview	Jan	53	New & Notable: Direct Vent	Apr	Managing Information	Oct	84	
Cooktop Watches the Pot	Feb	53	1999 Market Profile (Share of Market)	Apr	INFRARED			
Domotecnica Preview: Still Growing	Feb	53	Turning to Fast Cycle	Apr	Cooktop Watches the Pot	Feb	24	
Heating Elements: Two Challenges—Fit and Efficiency	Mar	78	AHR Expo Standouts: Gas Heater A/C	Apr	INJECTED-METAL ASSEMBLY			
Replaceable Heating Element	Mar	91	'Tank-in-Tank'	Apr	Assembly By Casting	Jul	48	
Self-Regulating Heater	Mar	91	Dual Capacities	Apr	INJECTION MOLDING			
Direct-to-Water Heater	Mar	62	Coil Cuts Cooling Costs by 50%	Apr	Scientific Breakthrough Delivers	Jun	32	
1999 Market Profile (Component/Material Consumption)	Apr	62	Radiant Heating Up	Apr	Conductive Resins for Computers	Aug	25	
Suppliers Mirror Appliance Trends	May	64	QAT (Quality Action Team) Unites	Apr	Decorating Options	Aug	38	
Multi-Probe Diagnostics	Jul	64	Tecumseh and Henkel	Apr	Pump Maker Recreates Design	Nov	27	
HOME AND PORTABLE AUDIO PRODUCTS								
Annual Industry Outlook: New Products Power Gains	Jan	53	Testing and Certification Update	Apr	IN-MOLD			
Spreading the Net	Mar	30	IATC Preview: Looking Back at Looking Ahead	Apr	Product Launch Time Cut	Aug	36	
Home Automation: Catalysts for Connectivity	Sep	86	Less Is Better	May	Decorating Options	Aug	38	
Different Pathways	Sep	24	Flow of Ideas	May	'True-to-Form' Film	Aug	44	
HOME AUTOMATION								
Annual Industry Outlook: New Products Power Gains	Jan	57	Customization Not Redesign	Jun	Ensures Consistency	Aug	44	
Spreading the Net	Mar	62	Adhesives Provide HVAC with Green Strength	Jun	INNOVATION			
Home Automation: Catalysts for Connectivity	Sep	64	Cool Ideas	Jun	Editorial: Caution—Learning Curve Ahead	Jan	5	
Different Pathways	Sep	64	Lining Up Behind AZ-20	Jun	Editorial: Plan for Nashville, Now	May	5	
HOME INFORMATION APPLIANCES								
Annual Industry Outlook: New Products Power Gains	Jan	64	Association Report: ARI—Opposing Europe on Early HCFC Phaseout	Jul	Dom Delights	May	27	
Spreading the Net	Mar	65	Cost Effective Adhesive Assemblies	Jul	AMCE: Discovery Road	Aug	65	
Home Automation: Catalysts for Connectivity	Sep	19	AMCE: Conference Program	Sep	AMCE: Creative Connectivity	Nov	51	
Different Pathways	Sep	41	AHAM: Regulations at a Glance	Sep	INSULATION			
HOME THEATER-IN-A-BOX								
Annual Industry Outlook: New Products Power Gains	Jan	91	AHAM: Setting the Standard(s)	Sep	Technology Update: Electrical Testing—Detecting Winding Problems Via Surge Testing	Mar	25	
Spreading the Net	Mar	91	R&D: Worldwide Input	Sep	1999 Market Profile (Component/Material Consumption)	Apr	19	
Home Automation: Catalysts for Connectivity	Sep	27	New & Notable: Double Cooling	Oct	AHAM-7			
Different Pathways	Sep	33	Record Speed	Oct	Adhesives Provide HVAC with Green Strength	Jun	46	
HOSE								
1999 Market Profile (Component/Material Consumption)	Apr	91	High Power, Compact Design	Oct	12	AMCE: Conference Program	Sep	38
Suppliers Mirror Appliance Trends	May	48	Smart Switches, Small Sizes	Oct	29	AMAH: Setting the Standard(s)	Sep	AHAM-8
Multi-Probe Diagnostics	Jul	27	Smart Motors	Oct	36	INTERNET		
HOSE								
Calls to Action	Nov	33	Cutting Edge: Controlling Drift Extends Battery Life	Nov	48	Online Buying and Selling	Feb	54
HUMIDIFIERS								
1999 Market Profile (Component/Material Consumption)	Apr	19	Spreading the Net	Mar	51	Spreading the Net	Mar	48
Suppliers Mirror Appliance Trends	May	19	Cutting Edge: Fridging the Net: For Real?	May	6	Cutting Edge: Fridging the Net: For Real?	May	6

1999 EDITORIAL INDEX

Issue	Page	Issue	Page	Issue	Page
Domo Delights.....	May	Reducing Washer Vibration and Noise	Nov	Association Report: AHAM—Year of Change.....	Apr
Home Automation:		Calls to Action	Nov	1999 Market Profile (Share of Market and Component/Material Consumption)	Apr
Catalysts for Connectivity	Sep	Solid Modeling Cuts Time to Market by One-Third for Matsushita	Nov	1999 Market Profile (Share of Market and Component/Material Consumption)	Apr
Cutting Edge: Cook College Graduates an Intelligent Microwave	Oct	AMCE: Creative Connectivity	Nov	Home Builder Show Highlights:	
INTUITIVE SYSTEMS		LAWN AND GARDEN		Better Served	Apr
Twelfth Annual Excellence in Design Winners	May	(see related product listings)		Domo Delights	May
IRONS		Plastics: Playing a Better Part	Jan	Globalization: The Second Decade	May
Plastics: Playing a Better Part	Jan	Annual Industry Outlook:		Global Thoughts	May
Annual Industry Outlook:		New Products Power Gains	Jan	Less Is Better	May
New Products Power Gains	Jan	Watch It Now	Mar	Twelfth Annual Excellence in Design Winners	May
Self-Regulating Heaters	Mar	1999 Market Profile (Share of Market and Component/Material Consumption)	Apr	Editorial: AHAM Alive and Well in Washington	Aug
1999 Market Profile (Share of Market)	Apr	Turning to Fast Cycle	Apr	Association Report: AHAM—Issue-Driven AHAM Focuses on Energy, Safety, and the Environment	Aug
Show Stoppers	May	Metalforming Advances		AHAM Annual Member Meeting Review: Capital Decisions	Sep
Solid Modeling Cuts Time to Market by One-Third for Matsushita	Nov	Yield Productivity Gains	Apr	Swim and Prosper	Sep
IRRIGATION SYSTEMS		New & Notable: Four Tools in One	Sep	CPCS Chair Challenges	AHAM-2
Touching Success	May	Editorial: EID Adds Categories	Oct	AHAM Members	Sep
ISO		Lawn, Garden & Power Equipment Expo '99 Review: Working Smarter	Oct	Industry Leaders Recognized:	
ISO 9000 Update	Aug	Pro Motion	Oct	Officers Named	Sep
Fast Track	Aug	Hous Calls	Oct	The World of Standards	Sep
JIT		Electric Sheep	Oct	Regulations at a Glance	Sep
Easy Open	Mar	Going Vertical	Oct	Setting the Standard(s)	Sep
JOINING		New Wave	Oct	Smart Switches, Small Sizes	Oct
(See Fastening/Adhesives/Joining)		LCD DISPLAYS		'Green' Steel Sheet	Nov
JOINT VENTURES		Brighter Display for Xerox Printer	Oct	AMCE: Creative Connectivity	Nov
Asia to Drive World Appliance Growth.....	Feb	LEAF BLOWERS/VACS		MANAGEMENT	
KETTLES		Plastics: Playing a Better Part	Jan	Editorial: Caution—Learning Curve Ahead	Jan
Direct-to-Water Heat	Mar	1999 Market Profile (Share of Market)	Apr	The Challenges of CAE Data Management	Apr
Laid-Back, Technology-Rich Designs	Mar	LED DISPLAYS		Globalization: The Second Decade	May
Domo Delights.....	May	Turning to Fast Cycle	Apr	Planning the Transition from 2D to 3D	Nov
New & Notable: Black and Stainless Beauty	Sep	LEISURE APPLIANCES		MANIFOLDS	
KIOSKS		Tireless Pitcher	Mar	Plastics: Playing a Better Part	Jan
Twelfth Annual Excellence in Design Winners	May	LIGHTS (indicator)		1999 Market Profile (Component/Material Consumption)	Apr
AMCE: Excellence in Design Winners	Sep	A Better View	Feb	MANUFACTURING/PRODUCTION	
KNIVES (electric)		1999 Market Profile (Component/Material Consumption)	Apr	Technology Update: Molding—Thinwall a Cost Cutter	Feb
Annual Industry Outlook:		LIGHTS (lighting)		Computer Modeling Speeds	
New Products Power Gains	Jan	Home Automation: Different Pathways	Sep	Design of New Steel Alloys	Feb
1999 Market Profile (Share of Market)	Apr	Technology Update: Metalforming—Rethinking Component Processing	Nov	Expo Targets Solutions for Steel Service Centers	Feb
KNOBS AND HANDLES		LITERATURE		Gas Cooktop Revolution	Feb
(See Handles and Knobs)		1999 Market Profile (Component/Material Consumption)	Apr	Technology Update: Electrical Testing—Detecting Winding Problems Via Surge Testing	Mar
LABELS		LOGS		Turn for the Better	Mar
(See Decorative Trim/Nameplates/Labels)		Annual Industry Outlook:		Variable Speed on High	Mar
LASER DISC PLAYERS		New Products Power Gains	Jan	Metalforming Advances	
Annual Industry Outlook:		LOTTERY TERMINALS		Yield Productivity Gains	Apr
New Products Power Gains	Jan	Joining Systems Save Time.		Technology Update: Software—Virtual Reality for Design and Manufacturing	May
LAUNDRY APPLIANCES		Money, Lives	Jun	Accelerating Time to Market for Adhesives	Jun
(see related product listings)		MAGNESIUM INJECTION MOLDING		One-Stop Concept/Manufacture Source	Jul
Plastics: Playing a Better Part	Jan	Weighing the Options	Jun	Cutting Edge: Quick Thinking Factory Robots	Aug
Annual Industry Outlook:		MAGNETRON		R&D: A Think Tank	Sep
Gunning for Global Gains	Jan	Variable Microwaves	Feb	R&D by Long Distance	Sep
Asia to Drive World Appliance Growth.....	Feb	MAIL SORTING (processor)		Information Technology: Protecting Intellectual Capital by Managing Information	Oct
New Marks for Europe	Feb	Plastics: Playing a Better Part	Jan	Technology Update: Metalforming—Rethinking Component Processing	Nov
Two Challenges: Fit and Efficiency	Mar	Flow of Ideas	May	Planning the Transition from 2D to 3D	Nov
Editorial: Small Could Be Big	Apr	MAJORS (see related product listings)		MARKET RESEARCH	
1999 Market Profile (Share of Market and Component/Material Consumption)	Apr	Annual Industry Outlook:		Turning to Fast Cycle	Apr
Turning to Fast Cycle	Apr	New Products Power Gains	Jan	Better Served	Apr
Better Served	Apr	Editorial: New Leader, New Location;		Editorial: Going for the Gold	Jun
IATC Preview: Looking Back at Looking Ahead	Apr	Same Questions, Same Challenges	Feb	AM Finishing Survey: The Future Is Powder	Sep
Domo Delights	May	Special Section: Exclusive		1999 Market Profile (Share of Market)	Apr
'Spot Soak' Switch Goes Mainstream	May	Global Report—Majors	Feb		
Cost-Effective Adhesive Assemblies	Jul	Asia to Drive World Appliance Growth	Feb		
AMCE: Conference Program	Aug	The World at a Glance	Feb		
AMCE: Force of the Future	Sep	New Marks for Europe	Feb		
AMCE: Conference Program	Aug	Europe at a Glance	Feb		
AMCE: Editors' Choice	Sep	Americas at a Glance	Feb		
AHAM: Swim and Prosper	Sep	Asia at a Glance	Feb		
AHAM: Regulations at a Glance	Sep	Domotica Preview: Still Growing	Feb		
AHAM: Setting the Standard(s)	Sep	Flash Value	Mar		
AMCE: Editors' Choice	Sep	Diverse, Decorative Design Options	Mar		
Record Speed	Oct	Small Electrics Later,			
Smart Motors	Oct	Majors Now for Dow	Mar		
Technology Update: Metalforming—Rethinking Component Processing	Nov				

1999 EDITORIAL INDEX

Issue	Page	Issue	Page	Issue	Page																																																																																																																																																																
A Virtual Factory for Assembly Processes.....	Jul 42	Fuel Cell Press for Large-Parts Prototyping	Apr 52	MOLDING																																																																																																																																																																	
MARKETING		Technology Update: Metalforming—Rethinking Component Processing	Nov 25	Technology Update: Molding—Thinwall a Cost Cutter	Feb 25																																																																																																																																																																
Annual Industry Outlook: New Products Power Gains	Jan 91	METALS/PREPAINT/PREFINISH		Cutting Edge: A Lot of Hot Air	Jan 6																																																																																																																																																																
Editorial: New Leader, New Location; Same Questions, Same Challenges	Feb 7	Pump Maker Recreates Design	Nov 27	Technology Update: Motors—Two-Phase, Switched-Reluctance Motor Control	Jan 19																																																																																																																																																																
Gas Cooktop Revolution	Feb 55	'Green' Steel Sheet	Nov 28	AHR Preview	Jan 86																																																																																																																																																																
Fighting Vampires	Mar 41	'Chain Gang'	Nov 29	Motors, Fans and Blowers:																																																																																																																																																																	
Editorial: Small Could Be Big	Apr 7	Reducing Washer Vibration and Noise	Nov 30	Predicting Performance	Mar 29																																																																																																																																																																
Editorial: AHAM Alive and Well in Washington	Aug 7	Steel's Status	Nov 31	Turn for the Better	Mar 34																																																																																																																																																																
Home Automation: Catalysts for Connectivity	Sep 27	Solid Block Painting	Nov 32	Easy Open	Mar 38																																																																																																																																																																
AMCE: Force of the Future	Sep 37	METERS		Tireless Pitcher	Mar 57																																																																																																																																																																
AHAM: Swim and Prosper	Sep AHAM-2	Joining Systems Save Time, Money, Lives	Jun 37	Watch It Mow	Mar 59																																																																																																																																																																
R&D: A Think Tank	Sep 79	Weighing the Options	Jun 57	Variable Speed on High	Mar 60																																																																																																																																																																
R&D by Long Distance	Sep 80	METRONOMES		Cutting Edge: Prosthetic Devices Get Smart	Apr 8																																																																																																																																																																
AMCE: Creative Connectivity	Nov 51	Touching Success	May 49	New & Notable: Direct Vet	Apr 12																																																																																																																																																																
MATERIALS		Fighting Vampires	Mar 41	1999 Market Profile	Apr 19																																																																																																																																																																
Plastics: Playing a Better Part	Jan 78	Silicon Sight	Mar 42	Suppliers Mirror Appliance Trends	May 41																																																																																																																																																																
Cost-Effective Color	Jan 80	Move on Board	Mar 46	Fans & Blowers: Advanced Floor Care	Jun 25																																																																																																																																																																
Thin Is In	Jan 83	Spreading the Net	Mar 48	Customization Not Redesign	Jun 26																																																																																																																																																																
Overmold Compatibility	Jan 86	Flash Value	Mar 49	Mini Fans Protect CPUs	Jun 29																																																																																																																																																																
AHR Preview	Jan 51	Tiny Tuner	Mar 54	"Ruggedized" Blower for Gas Baseboard Heaters	Jun 30																																																																																																																																																																
Computer Modeling Speeds Design of New Steel Alloys	Feb 52	It's Your Bug	Mar 55	Standard Blower Accepts Motor, Control Options	Jun 31																																																																																																																																																																
Expo Targets Solutions for Steel Service Centers	Feb 53	Smart Motors	Oct 51	Scientific Breakthrough Delivers	Jun 32																																																																																																																																																																
Editorial: Form, Function and Fun	Mar 7	MICROPROCESSORS		AM Motors Survey: Better and Better	Jun 33																																																																																																																																																																
1999 Market Profile (Component/Material Consumption)	Apr 19	Spreading the Net	Mar 52	Cool Ideas	Jun 51																																																																																																																																																																
ITAC Preview: Looking Back at Looking Ahead	Apr 69	Cutting Edge: A Thread of Hope for Processor Flexibility	Jun 53	Technology Update: Motors—A New Start	Jul 23																																																																																																																																																																
Suppliers Mirror Appliance Trends	May 41	Mini Fans Protect CPUs	Jun 54	Multi-Probe Diagnostics	Jul 28																																																																																																																																																																
Cost-Effective Adhesive Assemblies	Jul 46	Cutting Edge: Keep the Cache and Run	Jul 55	AMCE: Conference Program	Aug 68																																																																																																																																																																
AMCE: Creative Connectivity	Nov 51	Learning to Defrost	Nov 56	AMCE: Conference Program	Aug 69																																																																																																																																																																
MEDICAL APPLIANCES		MICROWAVE OVENS		AMCE: Force of the Future	Sep 37																																																																																																																																																																
A Better View	Feb 46	Cutting Edge: A Lot of Hot Air	Jan 57	AMCE: Conference Program	Sep 38																																																																																																																																																																
Editorial: Form, Function and Fun	Mar 7	Annual Industry Outlook: New Products Power Gains	Jan 58	AMCE: Educational Programs	Sep 46																																																																																																																																																																
Silicon Sight	Mar 42	Variable Microwaves	Feb 59	G-3 R&D: Worldwide Input	Sep 83																																																																																																																																																																
Cutting Edge: Prosthetic Devices Get Smart	Apr 8	Asia to Drive World Appliance Growth	Feb 60	Concrete Saw Cuts It with Solid State	Oct 35																																																																																																																																																																
Twelfth Annual Excellence in Design Winners	May 61	Domotecnica Preview: Still Growing	Feb 61	AMCE: Creative Connectivity	Nov 51																																																																																																																																																																
Cutting Edge: Keep the Cache and Run	Jul 6	Laid-Back, Technology-Rich Designs	Mar 62	MOTORS & MOTOR CONTROL																																																																																																																																																																	
Medical Equipment Breakthrough	Aug 33	1999 Market Profile (Share of Market)	Apr 63	Editorial: R&D Glass Half Full	Sep 7	New & Notable: Mini Microwave	May 64	Making Sense of Sensorless	Oct 51	AMCE: Excellence in Design Winners	Sep 58	POPCORN Research Advances	May 65	Smart Motors	Oct 51	AMCE: Excellence in Design Runners-Up	Sep 58	Microwave Cooking	May 66	Fasco R&D Cooks	Oct 52	AMCE: Editors' Choice	Sep 58	Globalization: The Second Decade	May 67	A.O. Smith Completes Third Acquisition in Three Years	Oct 52	R&D for the Millennium	Sep 81	IATC Review: Challenges and Solutions	Jul 68	Customization Options for DC Motors	Oct 56	Customization Options for DC Motors	Oct 56	Trained Teams/Lean Design	Jul 69	DSPs to Soar	Oct 56	Pump Maker Recreates Design	Nov 27	AMCE: Conference Program	Aug 70	MOWERS		MEMBRANE TOUCHPADS		Home Automation: Catalysts for Connectivity	Sep 71	Annual Industry Outlook: New Products Power Gains	Jan 91	From 20-Plus Parts to 2 Major Components	May 50	AMCE: Conference Program	Sep 72	Watch It Mow	Mar 59	METAL PARTS		AHAM: Swim and Prosper	Sep 73	1999 Market Profile (Market Share and Component/Material Consumption) ..	Apr 19	Diverse, Decorative Design Options	Mar 67	Cutting Edge: Cook College	Sep 74	Metaforming Advances Yield Productivity Gains	Apr 33	1999 Market Profile (Component/Material Consumption)	Apr 19	Graduates an Intelligent Microwave	Oct 75	Lawn, Garden & Power Equipment Expo '99 Review: Working Smarter	Oct 59	Diverse, Decorative Design Options	Mar 67	MITT (sensor-equipped)		House Calls	Oct 59	New Steel Designs for Handles	Aug 35	Home Automation: MITT's Digital Kitchen	Sep 76	Electric Sheep	Oct 62	METALS/METALFORMING		Annual Industry Outlook: New Products Power Gains	Jan 77	Going Vertical	Oct 65	Computer Modeling Speeds Design of New Steel Alloys	Feb 51	Laid-Back, Technology-Rich Designs	Mar 78	MULTIMEDIA		Expo Targets Solutions for Steel Service Centers	Feb 52	Twelfth Annual Excellence in Design Winners	May 79	Domo Delights	May 27	METALFORM '99: Advances and Trends	Feb 52	New Assembly by Casting	Jul 80	MULTIMETERS		Online Buying and Selling	Feb 54	AMCE: Excellence in Design Runners-Up	Sep 81	One-Piece Marvels	Aug 28	Metaforming Advances Yield Productivity Gains	Apr 33	4-in-1 Custom Switch for Moulineix Mixer	Oct 82	NAMEPLATES (See Decorative Trim/Nameplates/Labels)		Wolf Range at a Glance	Apr 36	MODELING		Networking	Feb 21	Finding the Root Cause using TDQC	Apr 38	Computer Modeling Speeds Design of New Steel Alloys	Feb 83	Cutting Edge: Cook College	Oct 8			Solid Modeling Cuts Time to Market by One-Third for Matsushita	Nov 84	Graduates an Intelligent Microwave	Oct 91			MODEMS		NEW-PRODUCT DEVELOPMENT				Annual Industry Outlook: New Products Power Gains	Jan 85	Annual Industry Outlook: New Products Power Gains	Jan 91					NICKEL						Tough Contender	Apr 46
Editorial: R&D Glass Half Full	Sep 7	New & Notable: Mini Microwave	May 64	Making Sense of Sensorless	Oct 51																																																																																																																																																																
AMCE: Excellence in Design Winners	Sep 58	POPCORN Research Advances	May 65	Smart Motors	Oct 51																																																																																																																																																																
AMCE: Excellence in Design Runners-Up	Sep 58	Microwave Cooking	May 66	Fasco R&D Cooks	Oct 52																																																																																																																																																																
AMCE: Editors' Choice	Sep 58	Globalization: The Second Decade	May 67	A.O. Smith Completes Third Acquisition in Three Years	Oct 52																																																																																																																																																																
R&D for the Millennium	Sep 81	IATC Review: Challenges and Solutions	Jul 68	Customization Options for DC Motors	Oct 56																																																																																																																																																																
Customization Options for DC Motors	Oct 56	Trained Teams/Lean Design	Jul 69	DSPs to Soar	Oct 56																																																																																																																																																																
Pump Maker Recreates Design	Nov 27	AMCE: Conference Program	Aug 70	MOWERS																																																																																																																																																																	
MEMBRANE TOUCHPADS		Home Automation: Catalysts for Connectivity	Sep 71	Annual Industry Outlook: New Products Power Gains	Jan 91																																																																																																																																																																
From 20-Plus Parts to 2 Major Components	May 50	AMCE: Conference Program	Sep 72	Watch It Mow	Mar 59																																																																																																																																																																
METAL PARTS		AHAM: Swim and Prosper	Sep 73	1999 Market Profile (Market Share and Component/Material Consumption) ..	Apr 19																																																																																																																																																																
Diverse, Decorative Design Options	Mar 67	Cutting Edge: Cook College	Sep 74	Metaforming Advances Yield Productivity Gains	Apr 33																																																																																																																																																																
1999 Market Profile (Component/Material Consumption)	Apr 19	Graduates an Intelligent Microwave	Oct 75	Lawn, Garden & Power Equipment Expo '99 Review: Working Smarter	Oct 59																																																																																																																																																																
Diverse, Decorative Design Options	Mar 67	MITT (sensor-equipped)		House Calls	Oct 59																																																																																																																																																																
New Steel Designs for Handles	Aug 35	Home Automation: MITT's Digital Kitchen	Sep 76	Electric Sheep	Oct 62																																																																																																																																																																
METALS/METALFORMING		Annual Industry Outlook: New Products Power Gains	Jan 77	Going Vertical	Oct 65																																																																																																																																																																
Computer Modeling Speeds Design of New Steel Alloys	Feb 51	Laid-Back, Technology-Rich Designs	Mar 78	MULTIMEDIA																																																																																																																																																																	
Expo Targets Solutions for Steel Service Centers	Feb 52	Twelfth Annual Excellence in Design Winners	May 79	Domo Delights	May 27																																																																																																																																																																
METALFORM '99: Advances and Trends	Feb 52	New Assembly by Casting	Jul 80	MULTIMETERS																																																																																																																																																																	
Online Buying and Selling	Feb 54	AMCE: Excellence in Design Runners-Up	Sep 81	One-Piece Marvels	Aug 28																																																																																																																																																																
Metaforming Advances Yield Productivity Gains	Apr 33	4-in-1 Custom Switch for Moulineix Mixer	Oct 82	NAMEPLATES (See Decorative Trim/Nameplates/Labels)																																																																																																																																																																	
Wolf Range at a Glance	Apr 36	MODELING		Networking	Feb 21																																																																																																																																																																
Finding the Root Cause using TDQC	Apr 38	Computer Modeling Speeds Design of New Steel Alloys	Feb 83	Cutting Edge: Cook College	Oct 8																																																																																																																																																																
		Solid Modeling Cuts Time to Market by One-Third for Matsushita	Nov 84	Graduates an Intelligent Microwave	Oct 91																																																																																																																																																																
		MODEMS		NEW-PRODUCT DEVELOPMENT																																																																																																																																																																	
		Annual Industry Outlook: New Products Power Gains	Jan 85	Annual Industry Outlook: New Products Power Gains	Jan 91																																																																																																																																																																
				NICKEL																																																																																																																																																																	
				Tough Contender	Apr 46																																																																																																																																																																

1999 EDITORIAL INDEX

Issue	Page	Issue	Page	Issue	Page	
OFFICE/BUSINESS APPLIANCES						
(See Business/Office Appliances)						
OMELET MAKERS						
New & Notable: The Omelet Maker	May	8	1999 Market Profile (Share of Market)Apr	19	PREFINISHED METAL	
(see related product listings)						
Plastics: Playing a Better Part	Jan	78	PERSONAL COMPUTERS	19	(See Metals/Prepaint/Prefinish)	
Annual Industry Outlook:		91	1999 Market Profile (Share of Market)Apr	19	PRINTERS	
New Products Power Gains	Jan	12	PIPE	19	Annual Industry Outlook:	
1999 Market Profile (Share of Market and Component/Material Consumption)Apr	19	1999 Market Profile (Component/Material Consumption)Apr	19	New Products Power Gains	Jan	
Better Served	Apr	63	PLANTS	G-3	New & Notable: Double-Sided Printing	Apr
Joining System Saves Time.		78	Asia to Drive World Appliance Growth....Feb	Joining Systems Save Time.		
Money, Lives	Jun	91	Cutting Edge: Quick	8	Money, Lives	Jun
New & Notable: 100,000 Plus BTUs	Sep	12	Thinking Factory Robots	Aug	Weighing the Options	Jun
New & Notable: Four Tools in One	Sep	14	PLASTIC MOLDING & FORMING	25	New & Notable: High-Speed Color	Jul
R&D: A Think Tank	Sep	79	Technology Update: Molding—	71	Just the Ticket for Printer Assembly	Jul
Editorial: EID Adds Categories	Oct	7	Thinwall a Cost Cutter	Feb	Editorial: EID Adds Categories	Oct
New & Notable: Gourmet Grilling	Oct	12	Plastic Molding and Forming:	71	Brighter Display for Xerox Printers	Oct
Lawn, Garden & Power Equipment Expo '99 Review: Working Smarter	Oct	14	Flow of Ideas	May	Smart Switches, Small Sizes	Oct
Pro Motion	Oct	59	Scientific Breakthrough Delivers	Jun	Pump Maker Recreates Design	Nov
House Calls	Oct	60	PLASTICS	32	PRODUCT LIABILITY	
Electric Sheep	Oct	62	Playing a Better Part	Jan	Association Report: GAMA—GAMA	
Going Vertical	Oct	65	Cost-Effective Color	Jan	Urge Support of State-Reform Efforts	Mar
PACKAGING		66	Thin Is In	Jan	Assembly Protection	Jul
R&D: A Think Tank	Sep	67	Overmold Compatibility	Jan	Association Report: GAMA—Sixty-Five and Growing Strong	Nov
R&D: Worldwide Input	Sep	78	Technology Update: Molding—	25	PRODUCTION-CYCLE TIME	
PAGERS		79	Thinwall a Cost Cutter	Feb	For Speaker Assembly,	
Spreading the Net	Mar	83	Diverse, Decorative Design Options	Mar	Strong Bond in Less Time	Jul
PAIN-RELIEF APPLIANCES		84	Small Electrics Later,	67	PRODUCTIVITY	
Laid-Back, Technology-Rich Designs	Mar	85	Majors Now for Dow	Mar	Fastener Standards for the 21st Century	Jul
PAINT		86	1999 Market Profile	19	Planning the Transition from 2D to 3D	Nov
1999 Market Profile (Consumption/Material Consumption)Apr	19	87	(Component/Material Consumption)Apr	26	PROFITABILITY	
Solid Block Painting	Nov	88	Customization Not Redesign	Jun	A Virtual Factory for	
PARTNERING (See Suppliers)		89	Editorial: IAER Effort Worth Following	Jul	Assembly Processes	Jul
Online Buying and Selling	Feb	90	Plastics: Conductive	25	PROJECTORS	
Two Challenges: Fit and Efficiency	Mar	91	Resins for Computers	Aug	Twelfth Annual Excellence	
From 20-Plus Parts to 2 Major Components	May	92	Plastics for Floor Care	Aug	In Design Winners	May
Listening Then Innovating	May	93	One-Piece Marvels	Aug	AMCE: Excellence in Design Winners	Sep
'Spot Soak' Switch Goes Mainstream	May	94	In Pursuit of Future Composites	Aug	PROTOTYPES	
Product Launch Time Cut	Aug	95	Icemakers Pose 3-Part Challenge	Aug	Predicting Performance	Mar
Steps Cut Costs	Aug	96	Achieving Better Plastic Gears	Aug	Turn for the Better	Mar
ISO 9000 Update	Aug	97	Medical Equipment Breakthrough	Aug	Laid-Back, Technology-Rich Designs	Mar
AMCE: Creative Connectivity	Nov	98	AMCE: Educational Programs	Aug	Turning to Fast Cycle	Apr
PARTS COUNT REDUCTION/STANDARDIZATION		99	AMCE: Conference Program	Aug	Domo Delights	May
From 20-Plus Parts to 2 Major Components	May	100	AMCE: Force of the Future	Sep	From 20-Plus Parts to 2 Major Components	May
Trained Teams/Lean Design	Jul	101	AMCE: Educational Programs	Sep	'Spot Soak' Switch Goes Mainstream	May
Fastener Standards for the 21st Century	Jul	102	Brighter Display for Xerox Printers	Oct	By the Way: The Next Great	
PCs		103	L&G: Working Smarter	Oct	New Appliance	May
1999 Market Profile (Share of Market)Apr	19	104	Sensor Ensures Right Touch	Feb	Joining Systems Save Time.	
PCBs		105	POOLS/SPAS	51	Money, Lives	Jun
Flash Value	Mar	106	Plastics: Playing a Better Part	Jan	Conductive Resins for Computers	Aug
PERFORMANCE		107	PORCELAIN ENAMEL		3D Graphic for Roller Grill	Aug
Plastics: Playing a Better Part	Jan	108	1999 Market Profile	19	Home Automation: Catalysts	
Technology Update: Molding—		109	(Component/Material Consumption)Apr	20	for Connectivity	Sep
Thinwall a Cost Cutter	Feb	110	PORTABLE EQUIPMENT		Cutting Edge: Cook College	
Turn for the Better	Mar	111	Annual Industry Outlook:		Graduates an Intelligent Microwave	Oct
Mores on Board	Mar	112	New Products Power Gains	Jan	L&G: Working Smarter	Oct
Gas Heater A/C	Apr	113	The Shape of Safety	Jul	Editorial: Wanted—Designs for	
Steps Cut Costs	Aug	114	PORTABLE HEADSET AUDIO		the Twentysomethings	Nov
Cold Value	Aug	115	Annual Industry Outlook:		PROTOTYPING/INDUSTRIAL DESIGN/SOFTWARE	
Customization Options for DC Motors	Oct	116	New Products Power Gains	Jan	Calls to Action	Nov
PERIPHERALS/ACCESSORIES		117	POT (dispensing)		Maytag Adds RISD Resources	Nov
Editorial: EID Adds Categories	Oct	118	New & Notable: Double the Capacity	Sep	Electrolux Chameleon Is 'Cool'	
Customization Options for DC Motors	Oct	119	POWDER COATING		DFE Case Study	Nov
PERSONAL CARE		120	Powder Picture Bright	Sep	Planning the Transition from 2D to 3D	Nov
(see related product listings)		121	Coating '99	Sep	Innovations	Nov
Laid-Back, Technology-Rich Designs	Mar	122	Merger Mania	Sep	Solid Modeling Cuts Time to Market by One-Third for Matsushita	Nov
1999 Market Profile (Share of Market)Apr	19	123	Grounded for Powder	Sep	PRUNERS	
Twelfth Annual Excellence in Design Winners	May	124	The Story Behind Grounding	Sep	Annual Industry Outlook:	
Association Report: NHMA—Make It Home to the 2000 Housewares Show	Sep	125	AM Finishing Survey:	Sep	New Products Power Gains	Jan
		126	The Future Is Powder	Sep	PUMPS	
		127	POWER METAL		1999 Market Profile (Component/Material Consumption)Apr	19
		128	(See Stampings, Die Castings & P/M)		Making Sense of Sensorless	Oct
		129	POWER TOOLS		Pump Maker Recreates Design	Nov
		130	Plastics: Playing a Better Part	Jan	Better Firefighting	Nov
		131	Annual Industry Outlook:		PURCHASING	
		132	New Products Power Gains	Jan	Gas Cooktop Revolution	Feb
		133	Editorial: Form, Function and Fun.	Mar	1999 Market Profile (Component/Material Consumption)Apr	19
		134	R&D: A Think Tank	Sep		
		135	R&D: A Weighty Challenge	Sep		
		136	Smart Switches, Small Sizes	Oct		

1999 EDITORIAL INDEX

Issue	Page	Issue	Page	Issue	Page
Metalforming Advances		Domo Delights	May	Flow of Ideas	May
Yield Productivity Gains	Apr	Twelfth Annual Excellence	May	Editorial: Going for the Gold	Jun
Advanced Floor Care	Jun	in Design Winners	May	New & Notable: Refrigeration	Jun
ISO 9000 Update	Aug	Editorial: Going for the Gold	Jun	for Outdoors	Jun
QUALITY (Continuous Improvement)		New & Notable: First Twin of Its Kind, First Steam Oven for the U.S., World's First Gas Broiler	May	Joining Systems Save Time, Money, Lives	Jun
Editorial: Caution—Learning Curve Ahead	Jan	in a Convection Oven	Jun	Cool Ideas	Jun
Gas Cooktop Revolution	Feb	Seal Solves Stove Failure Problem	Jul	One-Stop Concept/ Manufacture Source	Jul
Predicting Performance	Mar	A Domed Beauty	Aug	A Domed Beauty	Aug
Move on Board	Mar	AMCE: Conference Program	Aug	Fast Track	Aug
Metalforming Advances		New & Notable: Stainless Sheet Behind Glass	Sep	AMCE: Conference Program	Aug
Yield Productivity Gains	Apr	Maytag Finds Of 'Lonely's 'Twin'	Sep	Association Report: NHMA—Make It Home to the 2000 Housewares Show	Sep
QAT (Quality Action Team)		Plus Award-Winning Twin Bakers	Sep	Home Automation: Catalysts for Connectivity	Sep
Unites Tecumseh and Henkel	Apr	Home Automation: MIT's Digital Kitchen	Sep	Home Automation: MIT's Digital Kitchen	Sep
Better Served	Apr	AMCE: Force of the Future	Sep	AMCE: Conference Program	Sep
Fastener Standards for the 21st Century	Jul	AMCE: Conference Program	Sep	AHAM: Swim and Prosper	Sep
A Virtual Factory for Assembly Processes	Jul	AHAM: Regulations at a Glance	Sep	AHAM: Regulations at a Glance	Sep
Torque Teamwork	Jul	AHAM: Setting the Standard(s)	Sep	AMCE: Editors' Choice	Sep
Assembly Protection	Jul	AMCE: Excellence	Sep	R&D: Gas Modules for Fast Food	Sep
Pioneering Contract Gasketing	Jul	in Design Runners-Up	Sep	Smart Motors	Sep
Technology Update: Fastening—Magnetic Pulse Welding Impacts		R&D: Gas Modules for Fast Food	Sep	Editorial: Wanted—Designs for the Twentysomethings	Sep
Appliance Industry	Aug	Record Speed	Oct	Technology Update: Metalforming—Rethinking Component Processing	Sep
Step Cut Costs	Aug	Editorial: Wanted—Designs for the Twentysomethings	Nov	Calls to Action	Sep
Asian Connection	Aug	Technology Update: Metalforming—Rethinking Component Processing	Nov	By the Way: Two Faces Eye the Future	Sep
ISO 9000 Update	Aug	AMCE: Creative Connectivity	Nov	RELAYS <i>(See Switches, Relays, Displays)</i>	
QUIET DESIGN		RECYCLING		RESEARCH AND DEVELOPMENT	
Technology Update: Motors—Two-Phase, Switched-Reluctance		Computer Modeling Speeds		Computer Modeling Speeds	
Motor Control	Jan	Design of New Steel Alloys	Feb	Design of New Steel Alloys	Feb
Plastics: Playing a Better Part	Jan	L&G: Working Smarter	Oct	Accelerating Time to Market for Adhesives	Jun
Turn for the Better	Mar	Steel's Status	Nov	Editorial: R&D Glass Half Full	Sep
Easy Open	Mar	Electrolux Chameleon Is 'Cool'	Nov	AMCE: Force of the Future	Sep
New & Notable: Shhhh!	Apr	DFE Case Study	Nov	Research and Development:	
ITAC Preview: Looking Back at Looking Ahead	Apr	Plastics: Playing a Better Part	Jan	A Think Tank	Sep
Mini Fans Protect CPUs	Jun	Turning to Fast Cycle	Apr	A Weighy Challenge	Sep
AMCE: Force of the Future	Sep	'Spot Soak' Switch Goes Mainstream	May	R&D by Long Distance	Sep
L&G: Working Smarter	Oct	Customization Not Redesign	Jun	R&D for the Millennium	Sep
Reducing Washer Vibration and Noise	Nov	Trained Teams/ Lean Design	Jul	Worldwide Input	Sep
AMCE: Creative Connectivity	Nov	Plastics for Floor Care	Aug	Gas Modules for Fast Food	Sep
RACK AUDIO SYSTEMS		Icemakers Pose 3-Part Challenge	Aug	Industry Drives R&D Spending	Sep
Annual Industry Outlook:		3D Graphic for Roller Grill	Aug	4-in-1 Custom Switches	Sep
New Products Power Gains	Jan	R&D: A Think Tank	Sep	Fasco R&D Cooks	Sep
RACKS		Pump Maker Recreates Design	Nov	RETAILING	
1999 Market Profile		REFRIGERANTS/REFRIGERATION		Amana Strives for Color	Mar
(Component/Material Consumption)	Apr	IAHR Preview	Jan	Editorial: AHAM Alive and Well in Washington	Aug
RADIANT		Association Report: ARI—'You've Got Mail'	Feb	ROBOTS	
Radiant Heating Up	Apr	1999 Market Profile	Apr	Watch It Now	Mar
Better Served	Apr	(Component/Material Consumption)	Apr	Laid-Back, Technology-Rich Designs	Mar
RADIATORS		Gas Heater A/C	Apr	Cutting Edge: Quick Thinking Factory Robots	Aug
Plastics: Playing a Better Part	Jan	IATC Preview: Looking Back at Looking Ahead	Apr	ROTISSERIES	
RADOS		Cool Ideas	Jun	Laid-Back, Technology-Rich Designs	Mar
Annual Industry Outlook:		Association Report: ARI—Opposing Europe on Early HCFC Phaseout	Jul	RUBBER	
New Products Power Gains	Jan	Technology Update: Fastening—Magnetic Pulse Welding Impacts	Aug	1999 Market Profile	Apr
Technology Update: Metalforming—Rethinking Component Processing	Nov	Appliance Industry	Aug	(Component/Material Consumption)	Apr
RANGE HOODS		Learning to Defrost	Nov	Self-Regulating Heater	Mar
Dometechnica Preview: Still Growing	Feb	Electrolux Chameleon Is 'Cool'	Nov	Association Report: AHAM—AHAM's Year of Change	Apr
Annual Industry Outlook:		DFE Case Study	Nov	The Shape of Safety	Jul
New Products Power Gains	Jan	REFRIGERATORS/FREEZERS		Association Report: AHAM—Issue-Driven AHAM Focuses on Energy, Safety, and the Environment	Aug
1999 Market Profile (Share of Market)	Apr	Annual Industry Outlook:		Cold Value	Aug
R&D: Gas Modules for Fast Food	Sep	New Products Power Gains	Jan	Getting Ready for IEC 60335	Aug
RANGES/OVENs		Asia to Drive World Appliance Market	Feb	European Update	Aug
Annual Industry Outlook:		Dometechnica Preview: Still Growing	Feb		
New Products Power Gains	Jan	Editorial: Small Could Be Big	Apr		
Information Technology: Voice Activation—New Tool for CAD	Jan	1999 Market Profile (Share of Market and Component/Material Consumption)	Apr		
Asia to Drive World Appliance Growth	Feb	Better Served	Apr		
Dometechnica Preview: Still Growing	Feb	Cutting Edge: Fridging the Net: For Real?	Jun		
1999 Market Profile (Share of Market and Component/Material Consumption)	Apr	Domo Delights	May		
Metalforming Advances					
Yield Productivity Gains	Apr				
Wolf Range at a Glance	Apr				
Better Served	Apr				

1999 EDITORIAL INDEX

	Issue	Page		Issue	Page		Issue	Page	
Designing for Compliance	Aug	56	SHARE OF MARKET				Learning to Defrost	Nov	37
AHAM: CPSC Chair Challenges			Special Report: 1999 Market Profile	Apr			AMCE: Creative Connectivity	Nov	51
AHAM Members	Sep	AHAM-2	SHAVERS				SMART COOKTOPS		
AHAM: The World of Standards	Sep	AHAM-6	Domotecnica Preview: Still Growing	Feb			Home Automation: MIT's		
AHAM: Regulations at a Glance	Sep	AHAM-7	1999 Market Profile (Share of Market)	Apr			Digital Kitchen	Sep	35
Cooktop Sensing System	Oct	32	SHIPPING				SNAP-FITS		
L&G: Working Smarter	Oct	59	Calls to Action	Nov			Plastics: Playing a Better Part	Jan	78
SALES			Shipments/Forecasts	Jan			Replaceable Heating Element	Mar	64
Online Buying and Selling	Feb	54	Shipments/Forecasts	Feb			SNOWMOBILES		
1998: The Growth Year	Apr	58	Shipments/Forecasts	Mar			Joining Systems Save Time,		
Editorial: Going for the Gold	Jun	7	Shipments/Forecasts	Apr			Money, Lives	Jun	37
R&D by Long Distance	Sep	80	Shipments/Forecasts	May			SNOW THROWERS (blowers)		
SANDERS			Shipments/Forecasts	Jun			1999 Market Profile (Share of Market)	Apr	19
Annual Industry Outlook:			Shipments/Forecasts	Jul			SOFTWARE		
New Products Power Gains	Jan	91	Shipments/Forecasts	Aug			Editorial: Caution—Learning		
SAWS			Shipments/Forecasts	Sep			Curve Ahead	Jan	5
New & Notable: A Clean Cut	Oct	12	Shipments/Forecasts	Oct			Sensor Ensures Right Touch	Feb	45
Concrete Saw Cuts It with Solid State	Oct	35	Shipments/Forecasts	Nov			Expo Targets Solutions for		
New & Notable: 8-Position Handle	Nov	12	Shipments/Forecasts	Oct			Steel Service Centers	Feb	52
SCANNERS			Shipments/Forecasts	Nov			Predicting Performance	Mar	29
Editorial: Form, Function and Fun	Mar	7	SHOWER HEAD				Turn for the Better	Mar	34
Twelfth Annual Excellence			New & Notable: At-Home Shower Spa	Sep			Spreading the Net	Mar	48
in Design Winners	May	61	SHREDDERS (paper)				Flash Value	Mar	49
SCRAP			Editorial: Form, Function and Fun	Mar			It's Your Bug	Mar	55
Product Launch Time Cut	Aug	36	Twelfth Annual Excellence				Turning to Fast Cycle	Apr	29
SCREEN PRINTING			in Design Winners	May			Cutting Edge: Fridging the		
'True-to-Form' Film			SILICON				Net: For Real?	May	6
Ensures Consistency	Aug	44	Cutting Edge: Diamonds				Technology Update: Software—		
SECURITY SYSTEMS			Show New Facet	Mar			Virtual Reality for Design		
MEMS on the Move	Feb	43	Silicon Sight	Mar			and Manufacturing	May	23
Fighting Vampires	Mar	41	SLICERS				Suppliers Mirror Appliance Trends	May	41
Spreading the Net	Mar	48	Laid-Back, Technology-Rich Designs	Mar			Cutting Edge: A Thread of Hope		
Turning to Fast Cycle	Apr	29	SMALL ELECTRICS				for Processor Flexibility	Jun	8
New & Notable:			(see related product listings)				Trained Teams/Lean Design	Jul	39
Security Finger Imaging	Jul	12	Association Report: NHMA—				A Virtual Factory for		
Home Automation: Different Pathways	Sep	33	Housewares Top Brass Tackle				Assembly Processes	Jul	42
SEMICONDUCTORS			Tough Issues in Unison	Jan			Assembly Protection	Jul	44
Cutting Edge: Diamonds		8	Annual Industry Outlook:				Fast Track	Aug	59
Show New Facet	Mar	41	New Products Power Gains	Jan			Home Automation:		
Fighting Vampires	Mar	42	Diverse, Decorative Design Options	Mar			Catalysts for Connectivity	Sep	27
Silicon Sight	Mar	48	Housewares Show Review:				R&D by Long Distance	Sep	80
Spreading the Net	Mar	54	Laid-Back, Technology-Rich Designs	Mar			R&D for the Millennium	Sep	81
Tiny Tuner	Mar		Small Electrics Later:				Information Technology:		
SENSORS			Majors Now for Dow	Mar			Protecting Intellectual Capital		
Cutting Edge: Building			Design Champs	Mar			by Managing Information	Oct	84
Better Biosensors	Feb	8	Association Report: AHAM—				Reducing Washer Vibration and Noise	Nov	30
Cutting Edge: Diamonds		63	AHAM's Year of Change	Apr			Electrolux Chameleon Is 'Cool'		44
Show New Facet	Mar	41	1999 Market Profile (Share of Market				DFE Case History	Nov	46
Easy Open	Mar	38	and Component/Material Consumption)	Apr			Planning the Transition from 2D to 3D	Nov	46
Silicon Sight	Mar	42	Association Report: NHMA—				SOLID STATE		
Cutting Edge: Prosthetic			Small Appliance Showcase Created				Concrete Saw Cuts It with Solid State	Oct	35
Devices Get Smart	Apr	63	for Year 2000 Housewares Show	May			SPACE HEATING		
Suppliers Mirror Appliance Trends	May	41	Domo Delights	May			'Tank-in-Tank'	Apr	54
Multi-Probe Diagnostics	Jul	28	Twelfth Annual Excellence				SPACE (outer)		
Product Launch Time Cut	Aug	36	in Design Winners	May			AMCE: Force of the Future	Sep	37
AMCE: Force of the Future	Sep	37	Editorial: AHAM Alive				AMCE: Educational Programs	Sep	46
AMCE: Conference Program	Sep	38	and Well in Washington	Aug			 SPEECH RECOGNITION		
AMCE: Editors' Choice	Sep	58	Association Report: NHMA—Make It				Technology Update:		
Cooktop Sensing System	Oct	32	Home to the 2000 Housewares Show	Sep			Software—Virtual Reality for		
Making Sense of Sensorless	Oct	51	AHAM: Industry Leaders				Design and Manufacturing	May	23
Learning to Defrost	Nov	37	Recognized, Officers Named	Sep	AHAM-3		SPEAKERS		
SERVICE			AHAM: The World of Standards	Sep	AHAM-6		Annual Industry Outlook:		
Brainstorming	Feb	21	Brainstorming	Feb			New Products Power Gains	Jan	91
Flash Value	Mar	49	Domotecnica Preview: Still Growing	Feb			SPRINGS		
L&G: House Calls	Oct	60	Spreading the Net	Mar			1999 Market Profile		
Calls to Action	Nov	41	Laid-Back, Technology-Rich Designs	Mar			(Component/Material Consumption)	Apr	19
SET-UP INTERNET ACCESS DEVICES			Cutting Edge: Prosthetic				Metaforming Advances		
Annual Industry Outlook:			Devices Get Smart	Apr			Yield Productivity Gains	Apr	33
New Products Power Gains	Jan	91	Turning to Fast Cycle	Apr			'Tank-in-Tank'	Apr	54
SEWING MACHINES			Better Served	Apr			Direct-to-Water Heat	Mar	65
New Marks for Europe	Feb	G-7	Domo Delights	May			Metaforming Advances		
New & Notable: Creative Sewing	Sep	12	Home Automation: MIT's				Yield Productivity Gains	Apr	33
SHAPE MACHINES			Digital Kitchen	Sep			'Tank-in-Tank'	Apr	54
Home Automation: MIT's			Cooktop Sensing System	Oct			Better Served	Apr	63
Digital Kitchen	Sep	35	Smart Switches, Small Sizes	Oct			Technology Update: Metalforming—		
			Smart Motors	Oct			Rethinking Component Processing	Nov	25
							Calls to Action	Nov	41

1999 EDITORIAL INDEX

Issue	Page	Issue	Page	Issue	Page
STAMPINGS, DIE CASTINGS & P/M					
1999 Market Profile (Component/Material Consumption).....	19	Thin Is In.....	Jan	80	Dual Capacities
Finding the Root Cause using TQDC	38	Overmold Compatibility.....	Jan	83	Apr 55
Stampings, Die Castings & P/M: Weighing the Options	57	Innovations.....	Jan	85	Coil Cuts Cooling Costs by 50%
Solid Modeling Cuts Time to Market by One-Third for Matsushita	48	AHR Preview.....	Jan	86	Apr 56
Testing and Certification Update	59	New Products.....	Jan	101	Radiant Heating Up
IATC Preview: Looking Back at Looking Ahead.....	69	Controls, Timers, Sensors & Displays: Brainstorming	Feb	21	QAT (Quality Action Team) Unities Tecumseh and Henkel.....
IATC Review: Challenges and Solutions.....	21	Hands Free	Feb	22	Testing and Certification Update
Fastener Standards for the 21st Century	40	Variable Microwaves	Feb	22	Apr 57
Information Technology: Engineering Web-Based Digital Appliances	68	Innovations.....	Feb	22	IATC Preview: Looking Back at Looking Ahead
Getting Ready for IEC 60335	50	Cooktop Watches the Pot.....	Feb	22	New Products
Asian Connection.....	54	Technology Update: Molding— Thinwall: A Cost Cutter	Feb	22	Technology Update: Software— Virtual Reality for Design and Manufacturing
European Update	56	MEMS on the Move.....	Feb	24	May 23
Designing for Compliance	56	Seeing the Light	Feb	25	Domo Delights: Suppliers Mirror Appliance Trends
ISO 9000 Update	58	Sensor Ensures Right Touch	Feb	43	Switches & Relays: Touching Success
Fast Track.....	59	A Better View	Feb	44	From 20-Plus Parts to 2 Major Components
New Blues and Other News	63	Metals: Computer Modeling Speeds Design of New Steel Alloys	Feb	45	May 50
Home Automation: Different Pathway	63	Expo Targets Solutions for Steel Service Centers	Feb	46	Listening Then Innovating
AHAM: Swim and Prosper	63	Innovations.....	Feb	51	Less Is Better
AHAM: The World of Standards	63	Online Buying and Selling.....	Feb	52	Innovations
AHAM: Regulations at a Glance	63	Cooktops & Burners: Gas Cooktop Revolution	Feb	53	Switch Design Evolution
AHAM: Setting the Standard(s)	63	Advanced Commercial Gas-Fired Range.....	Feb	54	'Spot Soak' Switch Goes Mainstream
R&D: Worldwide Input	83	Domotecnica Preview: Still Growing	Feb	55	Symbol 'Lights' Oven
Frankly Speaking: Call to Action— Get Involved in Global Standards	132	New Products	Feb	55	Twelfth Annual Excellence in Design Winners
Association Report: GAMA— Sixty-Five and Going Strong	19	Technology Update: Electrical Testing—Detecting Winding Problems Via Surge Testing	Mar	56	Plastic Molding & Forming: Flow of Ideas
STATISTICS (See Shipments)		Fans, Motors & Blowers	Mar	57	Innovations
Editorial: New Leader, New Location; Same Questions, Same Challenges	7	Turn for the Better	Mar	58	Fans & Blowers: Advanced Floor Care
1998: The Growth Year	58	Innovations.....	Mar	66	Customization Not Redesign
STEAM OVENS					
Domo Delights.....	27	Easy Open	Mar	59	Innovations
Plastics: Playing a Better Part	78	Microcontrollers/ICs: Fighting Vampires	Mar	25	Mini Fans Protect CPUs
Computer Modeling Speeds Design of New Steel Alloys	51	Flash Value	Mar	29	'Ruggedized' Blower for Gas Baseboard Heaters
Expo Targets Solutions for Steel Service Centers	52	Tiny Tuner	Mar	34	Jun 30
1999 Market Profile (Component/Material Consumption).....	19	It's Your Bug	Mar	36	Standard Blower Accepts Motor
'Tank-in-Tank'	54	Tireless Pitcher	Mar	38	Control Options
New Steel Designs for Handles	35	Innovations	Mar	41	Scientific Breakthrough Delivers
Technology Update: Metalforming— Rethinking Component Processing	25	Watch It Mow	Mar	42	AM Motor Survey: Better and Better
'Green' Steel Sheet	28	Variable Speed on High	Mar	46	Fasteners/Adhesives/Joining: Joining Systems Save Time, Money, Lives
Reducing Washer Vibration and Noise	30	Heating Elements: Two Challenges—Fit and Efficiency	Mar	47	Innovations Update: Software—3D Speedup
Steel's Status	30	Replaceable Heating Element	Mar	48	Jun 41
STEEL SERVICE CENTERS					
Expo Targets Solutions for Steel Service Centers	52	Self-Regulating Heating Element	Mar	49	Accelerating Time to Market for Adhesives
'Chain Gang'	29	Innovations	Mar	54	Jun 44
STOVES (wood burning)		Diverse, Decorative Design Options	Mar	55	Adhesives Provide HVAC with Green Strength
Annual Industry Outlook: New Products Power Gains	91	Innovations	Mar	57	Jun 46
Cutting Edge: Wood-Pellet Burner Turns Down Global Heat	8	Amana Strives for Color	Mar	57	Compressors, Refrigerants & Insulation: Cool Ideas
STRING TRIMMERS		Small Electrics Later, Majors Now for Dow	Mar	58	Innovations
1999 Market Profile (Share of Market)	91	New Products	Mar	60	Frigidaire Backs Replacement Refrigerant
Metalforming Advances Yield Productivity Gains	33	Association Report: AHAM— AHAM's Year of Change	Apr	62	Jun 55
SUBASSEMBLIES		1999 Market Profile (Component/Material Consumption).....	Apr	64	Lining Up Behind AZ-20
Flow of Ideas	75	Technology Update: Controls— Turning to Fast Cycle	Apr	64	Blowing Foam
One-Stop Concept/Manufacture Source	43	Metaforming: Advances Yield Productivity Gains	Apr	66	Stampings, Die Castings & P/M: Weighing the Options
SUPPLIERS (Partnering with OEMs)					
Technology Update: Motors— Two-Phase, Switched-Reluctance Motor Control	19	Innovations	Apr	66	Jun 57
Supplier Spotlight	25	Find the Root Cause Using TQDC	Apr	67	Technology Update: Finishing Trends— Pre-treatments for Powder Coatings
Plastics: Playing a Better Part	78	Connectors, Cords, Cordsets, Wire & Cable: Cooler Connection	Apr	68	Jun 60
Cost-Effective Color	79	Touch Contender	Apr	69	Materials/Process Management
		Innovations	Apr	70	Jun 61
		Fluid Cell Press for Large-Parts Prototyping	Apr	74	Plastic Finishing Methods
		AHR Expo Standouts: Innovations	Apr	83	Jun 70
				14	Frankly Speaking: Advantages of Creating Your Own Workforce
				19	Jun 76
				19	Technology Update: Motors— A New Start
				29	Temperature Controls & Bimetal Devices: The Shape of Safety
				29	Jul 27
				33	Multi-Probe Diagnostics
				33	Jul 28
				33	Innovations
				33	Jul 33
				34	Assembly: Trained Teams/Lean Design
				34	Jul 39
				38	Fastener Standards Ready for the 21st Century
				41	Jul 40
				41	A Virtual Factory for Assembly Processes
				46	Jul 42
				46	One-Stop Concept/Manufacture Source
				46	Jul 43
				52	Torque Teamwork
				52	Assembly Protection
				52	Jul 44
				54	Automating Assembly
				54	Jul 45
				54	Just the Ticket for Printer Assembly
				54	Jul 46

1999 EDITORIAL INDEX

Issue	Page	Issue	Page	Issue	Page	
Cost-Effective Adhesive Assemblies	Jul	46	Motor & Motor Control:	51	Plastics: Playing a Better Part	Jan
Assembly by Casting	Jul	48	Making Sense of Sensorless	Oct	Information Technology: Voice	Jan
Innovations	Jul	49	Smart Motors	Oct	Activation—New Tool for CAD	Jan
For Speaker Assembly, Strong Bond in Less Time	Jul	50	Fasco R&D Cooks	Oct	Cutting Edge: Building	Feb
Gaskets & Seals: Pioneering Contract Gasketing	Jul	52	A.O. Smith Completes Third Acquisition in Three Years	Oct	Better Biosensors	Feb
Innovations	Jul	53	Innovations	Oct	Technology Update: Molding—Thinwall: A Cost Cutter	Feb
Seal Solves Stove Failure Problem	Jul	54	Customization Options for DC Motors	Oct	A Better View	Feb
New Products	Jul	64	DSPs to Soar	Oct	Computer Modeling Speeds Design of New Steel Alloys	Feb
Editorial: AHAM Alive and Well in Washington	Aug	7	New Products	Oct	Expo Targets Solutions for Steel Service Centers	Feb
Technology Bazaar	Aug	18	Technology Update: Metalforming—Rethinking Component Processing	Nov	Gas Cooktop Revolution	Feb
Technology Update: Fastening—Magnetic Pulse Welding Impacts Appliance Industry	Aug	22	Pump Maker Recreates Design	Nov	Advanced Commercial Gas-Fired Range-top	Feb
Plastics: Conductive Resins for Computers	Aug	25	'Green' Steel Sheet	Nov	Editorial: Form, Function and Fun	Mar
Plastics for Floor Care Innovations	Aug	26	Reducing Washer Vibration and Noise	Nov	Cutting Edge: Diamonds Show New Facet	Mar
One-Piece Marvels	Aug	28	Solid Block Painting	Nov	Technology Update: Electrical Testing—Detecting Winding Problems Via Surge Testing	Mar
In Pursuit of Future Composites	Aug	29	Better Firefighting	Nov	Silicon Sight	Mar
Icemakers Pose 3-Part Challenge	Aug	31	Wearing Well	Nov	Spreading the New	Mar
Achieving Better Plastic Gears	Aug	32	Learning to Defrost	Nov	Flash Value	Mar
Medical Equipment Breakthrough	Aug	33	Innovations	Nov	Tiny Tuner	Mar
Decorative Trim, Nameplates & Labels: New Steel Designs for Handles	Aug	35	Solid Modeling Cuts Time to Market by One-Third for Matsushita	Nov	Variable Speed on High	Mar
Product Launch Time Cut	Aug	36	AMCE: Creative Connectivity	Nov	Laid-Back, Technology-Rich Designs	Mar
In-Mold Process	Aug	36	New Products	Nov	IATC Marks 50th	Mar
Decorating Options	Aug	38	SUPPLY CHAIN MANAGEMENT (SCM)		Cutting Edge: Prosthetic Devices Get Smart	Apr
Innovations	Aug	39	Expo Targets Solutions for Steel Service Centers	Feb	Technology Update: Controls—Turning to Fast Cycle	Apr
A Domed Beauty	Aug	40	'Chain Gang'	Nov	Gas Heater A/C	Apr
Costs Cut As Quality Rises	Aug	41	SWITCHES/RELAYS/DISPLAYS		'Tank-in-Tank'	Apr
3D Graphic for Roller Grill	Aug	44	AHR Preview	Jan	Dual Capabilities	Apr
'True-to-Form' Film Ensures Consistency	Aug	44	New Marks for Europe	Feb	Coil Cuts Cooling Costs by 50%	Apr
Steps Cut Costs	Aug	45	Domotecnica Preview: Still Growing	Feb	G-7 Radiant Heating Up	Apr
Testing Labs, Equipment, Standards & Certification: Cold Value	Aug	47	Cutting Edge: Diamonds Show New Facet	Mar	IATC Preview: Looking Back at Looking Ahead	Apr
Innovations	Aug	48	1999 Market Profile		Information Technology: The Challenge of CAE Data Management	Apr
Getting Ready for IEC 60335	Aug	50	(Component/Material Consumption)	Apr	Technology Update: Software—Virtual Reality for Design and Manufacturing	May
Asian Connection	Aug	54	Suppliers Mirror Appliance Trends	May	By The Way: The Next Great New Appliance	May
European Update	Aug	56	Switches & Relays: Touching Success	May	Cutting Edge: A Thread of Hope for Processor Flexibility	Jun
Designing for Compliance	Aug	56	From 20-Plus Parts to 2 Major Components	May	Advanced Floor Care	Jun
ISO 9000 Update	Aug	59	Listening Then Innovating	May	Scientific Breakthrough Delivers	Jun
Fast Track	Aug	63	Less Is Better	May	Joining Systems Save Time, Money, Lives	Jun
New Blues and Other News	Aug	65	Switch Design Evolution	May	Accelerating Time to Market for Adhesives	Jun
1999 AMCE Preview: Discovery Road	Aug	66	'Spot Soak' Switch Goes Mainstream	May	Adhesives Provide HVAC with Green Strength	Jun
AMCE: Conference Program	Aug	70	Symbol 'Lights' Oven	May	Cool Ideas	Jun
AMCE: Educational Programs	Aug	72	Technology Update: Motors—A New Start	Jul	Weighing The Options	Jun
AMCE: Exhibitor List	Aug	82	Switches & Relays: Brighter Display for Xerox Printer	Oct	Technology Update: Finishing Trends—Pretreatments for Powder Coating	Jun
New Products	Aug	82	Concrete Saw Cuts It with Solid State	Oct	Materials/Process Management	Jun
Home Automation: Catalysts for Connectivity	Sep	60	High Power, Compact Design	Oct	Plastic Finishing Methods	Jun
AMCE: Conference Program	Sep	62	4-in-1 Custom Switch for Moulinex Mixer	Oct	IATC Review: Challenges and Solutions	Jul
1999 AMCE Exhibitor List	Sep	71	An AC/DC Mix	Oct	Technology Update: Motors—A New Start	Jul
AMCE Expo Exhibitor Preview	Sep	72	New Look for Curvette Series	Oct	The Shape of Safety	Jul
Powder Coating: Powder Picture Bright	Sep	74	Smart Switches, Small Sizes	Oct	Pioneering Contract Gasketing	Jul
Grounded for Powder Innovations	Sep	87	TAPES AND RADIOS/TAPE PLAYERS/TAPE RECORDERS		Information Technology: Engineering Web-Based Digital Appliances	Jul
Technology Update: Adhesives—High-Performance Hot Melts	Sep	29	Annual Industry Outlook: New Products Power Gains	Jan	G-3 Editorial: AHAM Alive and Well in Washington	Aug
Technology Update: Ignition and Burner Control: Record Speed	Oct	32	TEAMS		55 Cutting Edge: Quick Thinking	Aug
Technology Update: Ignition and Burner Control: Cooktop Sensing System	Oct	35	Editorial: Caution—Learning Curve Ahead	Jan	39 Factory Robots	Aug
Switches & Relays: Brighter Display for Xerox Printer	Oct	35	Asia to Drive World Appliance Growth	Feb	44 Technology Update: Fastening—Magnetic Pulse Welding Impacts Appliance Industry	Aug
Concrete Saw Cuts It with Solid State	Oct	35	Gas Cooktop Revolution	Feb	44 Plastics for Floor Care	Aug
High Power, Compact Design Innovations	Oct	36	Trained Teams/Lean Design	Jul	44 New Steel Designs for Handles	Aug
4-in-1 Custom Switch for Moulinex Mixer	Oct	36	Torque Teamwork	Jul	48 Cold Value	Aug
An AC/DC Mix	Oct	38	R&D: A Think Tank	Sep		
New Look for Curvette Series	Oct	44	Technology Update: Two-Phase			
Smart Switches, Small Sizes	Oct	44	Switched-Reluctance Motor Control	Jan		
		48				

1999 EDITORIAL INDEX

Issue	Page	Issue	Page	Issue	Page			
Fast Track.....	Aug	59	Customization Not Redesign.....	Jun	26	UNINARY-CONTROL DEVICES		
1999 AMCE Preview: Discovery Road.....	Aug	65	Joining Systems Save Time, Money, Lives	Jun	37	Twelfth Annual Excellence in Design Winners		
Home Automation: Catalysts for Connectivity	Sep	27	Cool Ideas	Jun	54	VACS (lawn)		
Home Automation: Different Pathways.....	Sep	33	Seal Solves Stove Failure Problem	Jul	54	R&D: A Think Tank		
AMCE: Force of the Future.....	Sep	37	Testing Labs, Equipment, Standards & Certification: Cold Value	Aug	47	VACUUM CLEANERS		
Powder Picture Bright	Sep	71	Getting Ready for IEC 60335	Aug	50	Technology Update: Motors—Two-Phase, Switched-Reluctance		
R&D by Long Distance	Sep	80	Asian Connection	Aug	54	Motor Control		
R&D: Worldwide Input	Sep	83	European Update	Aug	56	Plastics: Playing a Better Part		
Technology Update: Adhesives—High-Performance Hot Melts.....	Sep	87	Designing for Compliance	Aug	56	Annual Industry Outlook:		
Cutting Edge: Cook College Graduates an Intelligent Microwave	Oct	8	ISO 9000 Update	Aug	58	New Products Power Gains		
Technology Update: Ignition and Burner Control—Record Speed.....	Oct	29	Fast Track	Aug	59	New Marks for Europe		
Technology Update: Ignition and Burner Control—Cooktop Sensing System	Oct	32	New Blues and Other News	Aug	63	Editorial: Form, Function and Fun		
Brighter Display for Xerox Printer	Oct	35	1999 AMCE Preview:		67	Laid-Back, Technology-Rich Designs		
High Power, Compact Design	Oct	36	Conference Program	Aug	38	1999 Market Profile (Share of Market)		
An AC/DC Mix	Oct	44	AMCE: Conference Program	Sep	58	Show Stoppers		
Making Sense of Sensorless	Oct	51	AMCE: Excellence in Design Winners	Sep	58	Twelfth Annual Excellence in Design Winners		
Fasco R&D Cooks	Oct	52	AMCE: Excellence in Design Runners-Up	Sep	58	Advanced Floor Care		
New Wave	Oct	67	Customization Options for DC Motors	Oct	56	Plastics for Floor Care		
Cutting Edge: Controlling Drift Extends Battery Life	Nov	6	THERMISTORS		56	New & Notable: Power Stick		
Technology Update: Metalforming—Rethinking Component Processing	Nov	25	Suppliers Mirror Appliance Trends	May	41	AMCE: Excellence in Design Runners-Up		
Calls to Action	Nov	41	THERMOCOUPLES		58	AMCE: Excellence in Design Runners-Up		
Planning the Transition from 2D to 3D	Nov	46	Joining Systems Save Time, Money, Lives	Jun	37	AMCE: Editors' Choice Winners		
By the Way: Two Faces Eye the Future	Nov	68	THERMOMETERS		58	An AC/DC Mix		
TELECOMMUNICATIONS (telephones)		1999 Market Profile		71	AMCE: Creative Connectivity			
Annual Industry Outlook:		1999 Market Profile		51	VALUE ENGINEERING			
New Products Power Gains	Jan	91	Steps Cut Costs	Aug	45			
Brainstorming	Feb	21	AHR Preview	Jan	86			
Technology Update: Molding—Thinwall: A Cost Cutter	Feb	25	1999 Market Profile	Apr	19			
MEMS on the Move	Feb	43	Radiant Heating Up	May	57			
Fighting Vampires	Mar	41	Wearing Well	Nov	36			
R&D by Long Distance	Sep	80	VCRs					
TELEVISIONS		Expanding Reach	Jun	91	Annual Industry Outlook:			
Annual Industry Outlook:		Hands Free	Feb	67	New Products Power Gains			
New Products Power Gains	Jan	TRACTORS		91	Jan	91		
Fighting Vampires	Mar	Annual Industry Outlook:		19	Fighting Vampires	Mar	41	
Tiny Tuner	Mar	New Products Power Gains	Jan	58	1999 Market Profile (Share of Market)	Apr	19	
1999 Market Profile (Share of Market)	Apr	L&G: Working Smarter	Oct	108	IATC Review: Challenges and Solutions	Jul	21	
AHAM: Swim and Prosper	Sep	L&G: Going Vertical	Oct	33	VENDING MACHINES			
TEMPERATURE CONTROLS/ BIMETAL DEVICES		TRAINING		33	Spreading the Net	Mar	48	
Cooktop Watches the Pot	Feb	Information Technology: Voice Activation—New Tool for CAD	Jan	91	VIDEO/AUDIO			
The Shape of Safety	Jul	27	Annual Industry Outlook:		59	Annual Industry Outlook:		
Multi-Probe Diagnostics	Jul	28	New Products Power Gains	Jan	65	New Products Power Gains		
Market Profile (Component/Material Consumption)	Apr	19	Tiny Tuners	Mar	54	Tiny Tuners		
TERMINALS		Trained Teams/Lean Design	Jul	1999 Market Profile (Share of Market)	Apr	19		
Plastics: Playing a Better Part	Jan	Planning the Transition from 2D to 3D	Nov	108	R&D by Long Distance	Sep	80	
TESTER		TRIMMERS (hedge and string)		33	VIDEOCONFERENCE			
Achieving Better Plastic Gears	Aug	Plastics: Playing a Better Part	Jan	46	R&D by Long Distance	Sep	80	
TESTING/CERTIFICATION/ STANDARDS/MEASUREMENT/ INSPECTION		Annual Industry Outlook:		39	VIDEO GAMES			
AHR Preview	Jan	New Products Power Gains	Jan	46	Silicon Sight	Mar	42	
New Marks for Europe	Feb	1999 Market Profile (Component/Material Consumption)	Apr	46	Home Automation: Catalysts for Connectivity	Sep	27	
A Better View	Feb	New & Notable: Four Tools in One	Sep	78	VIRTUAL REALITY			
Domotecnica Preview: Still Growing	Feb	TUBING		91	Information Technology: Engineering Web-Based Digital Appliances	Jul	68	
Technology Update: Electrical Testing—Detecting Winding Problems Via Surge Testing	Mar	1999 Market Profile		19	VOICE PRODUCTS			
Turn for the Better	Mar	25	Information Technology: Voice Activation—New Tool for CAD	Jan	14	Information Technology: Voice Activation—New Tool for CAD	Jan	108
Two Challenges: Fit and Efficiency	Mar	34	Technology Update: Software—Virtual Reality for Design and Manufacturing	May	19	Technology Update: Software—Virtual Reality for Design and Manufacturing	May	23
Self-Regulating Heater	Mar	62	VOTING MACHINES					
New & Notable: Shhhhhh!	Apr	64	See the Light	Feb	91	R&D by the Millennium	Sep	82
Testing and Certification Update	Apr	12	ULTRASONICS					
'Spot Soak' Switch Goes Mainstream	May	49	Cooler Connection	Apr	41	Better Served	Apr	63
Flow of Ideas	May	55	ULTRAVIOLET					
Twelfth Annual Excellence in Design Winners	May	75	See the Light	Feb	44	WARMING DRAWERS		
in Design Winners	May	61	UNIVERSAL KITCHEN					
Weighing the Options	Jun	12	Maytag Adds RISD Resources	Nov	41	Annual Industry Outlook:		
UTILITY VEHICLES (fork lifts)		49	Homeowner Peeves	Nov	42	New Products Power Gains		
Weighting the Options	Jun	55	Two Challenges: Fit and Efficiency	Mar	42	Asia to Drive World Appliance Growth		
Editorial: Small Could Be Big	Apr	75	Two Challenges: Fit and Efficiency	Mar	57	New Marks for Europe		
Editorial: Small Could Be Big	Apr	61	Domotecnica Preview: Still Growing	Feb	38	Two Challenges: Fit and Efficiency	Mar	62
		61	Weighing the Options	Jun	57	Editorial: Small Could Be Big	Apr	7

1999 EDITORIAL INDEX

Issue	Page	Issue	Page	Issue	Page
1999 Market Profile (Share of Market and Component/Material Consumption) ..Apr	19	Editorial: AHAM Alive and Well in Washington ..	Aug	7	Information Technology: Engineering Web-Based Digital Appliances ..
Turning to Fast Cycle.....Apr	29	Association Report: AHAM—			Jul
Better Served	63	Issue-Driven AHAM Focuses on Energy, Safety, and the Environment ..	Aug	12	WELDING
Domo Delights.....May	27	AHAM: Swim and Prosper	Sep		Turn for the Better
'Spot Soak' Switch Goes Mainstream.....May	55				Mar
Cost-Effective Adhesive Assemblies	46	AHAM-2			41
AMCE: Force of the Future	37	WATER FILTER SYSTEMS			For Speaker Assembly, Strong Bond in Less Time
AMCE: Conference Program.....Sep	38	See the Light	Feb	44	Jul
AHAM: Swim and Prosper	Sep	New & Notable: Team Boomer Dedicated to Cystic Fibrosis	Nov	12	Technology Update: Fastening—Magnetic Pulse Welding Impacts
AHAM: Regulations at a Glance	AHAM-7	WATER HEATERS			Appliance Industry
AHAM: Selling the Standard(s)	AHAM-8	Annual Industry Outlook:		12	Aug
AMCE: Editors' Choice	Sep	New Products Power Gains	Jan		WINE COOLERS (storage)
Record Speed.....Oct	58	Brainstorming	Feb	91	Domotecnica Preview: Still Growing ..
Smart Motors	29	Turn for the Better	Mar	21	Mega Wine Storage
Technology Update: Metalforming—Rethinking Component Processing	51	1999 Market Profile (Share of Market and Component/Material Consumption) ..Apr			WIRE
Reducing Washer Vibration and Noise	25	'Tank-in-Tank'	Apr	34	1999 Market Profile (Component/Material Consumption) ..Apr
Calls to Action	30	AMCE: Conference Program	Sep	19	WOOD-BURNING STOVES
Solid Modeling Cuts Time to Market by One-Third for Matsushita.....Nov	41	New & Notable: First Battery-Operated Tankless Water Heater	Oct	54	Enviroscene Wood-Pellet Burner
AMCE: Creative Connectivity	48	Association Report: GAMA—Sixty-Five and Going Strong	Nov	38	Turns Down Global Heat
WASHINGTON	51	WATER PURIFIERS		12	New & Notable: Hearthside Comfort
Editorial: New Leader, New Location: Same Questions, Same Challenges	7	Annual Industry Outlook:		19	WORD PROCESSORS
Association Report: GAMA—GAMA Urges Support of State Tort-Reform Efforts	16	New Products Power Gains	Jan		Annual Industry Outlook:
Association Report: AHAM—AHAM's Year of Change	14	New & Notable: Team Boomer Dedicated to Cystic Fibrosis	Nov		New Products Power Gains
Association Report: ARI—Opposing Europe on Early HCFC Phaseout	14	WATER SAVINGS		91	Jan
		Better Served	Apr		WORKFORCE
		WEB			Frankly Speaking: Advantages of Creating Your Own Workforce
		Spreading the Net.....	Mar	91	Jun
					WORKSTATIONS
				12	1999 Market Profile (Share of Market) ..Apr
				63	Y2K
				63	It's Your Bug
				48	By the Way: Do-It-Yourself Y2K Bug Killer
					Aug
					84



1999 Editorial Order Form

**Indicate below the articles listed in the 1999 Appliance Manufacturer Editorial Index
that you would like to receive. A payment of \$15.00 per article is required.**

Fax your request to us at 440/498-9121. Thank you for your interest!

Item	Issue Month	Page

Please respond by: Fax Mail
Send article(s) to:

Method of Payment: VISA MasterCard
 AmEx Check enclosed

Name _____
Title _____
Company _____
Address _____
City/State/Zip _____
Phone () _____ Fax () _____

Card Number _____ **Exp. date** _____

Mail orders to: *Appliance Manufacturer*
5900 Harper Road, Suite 105
Schaumburg, IL 60193

